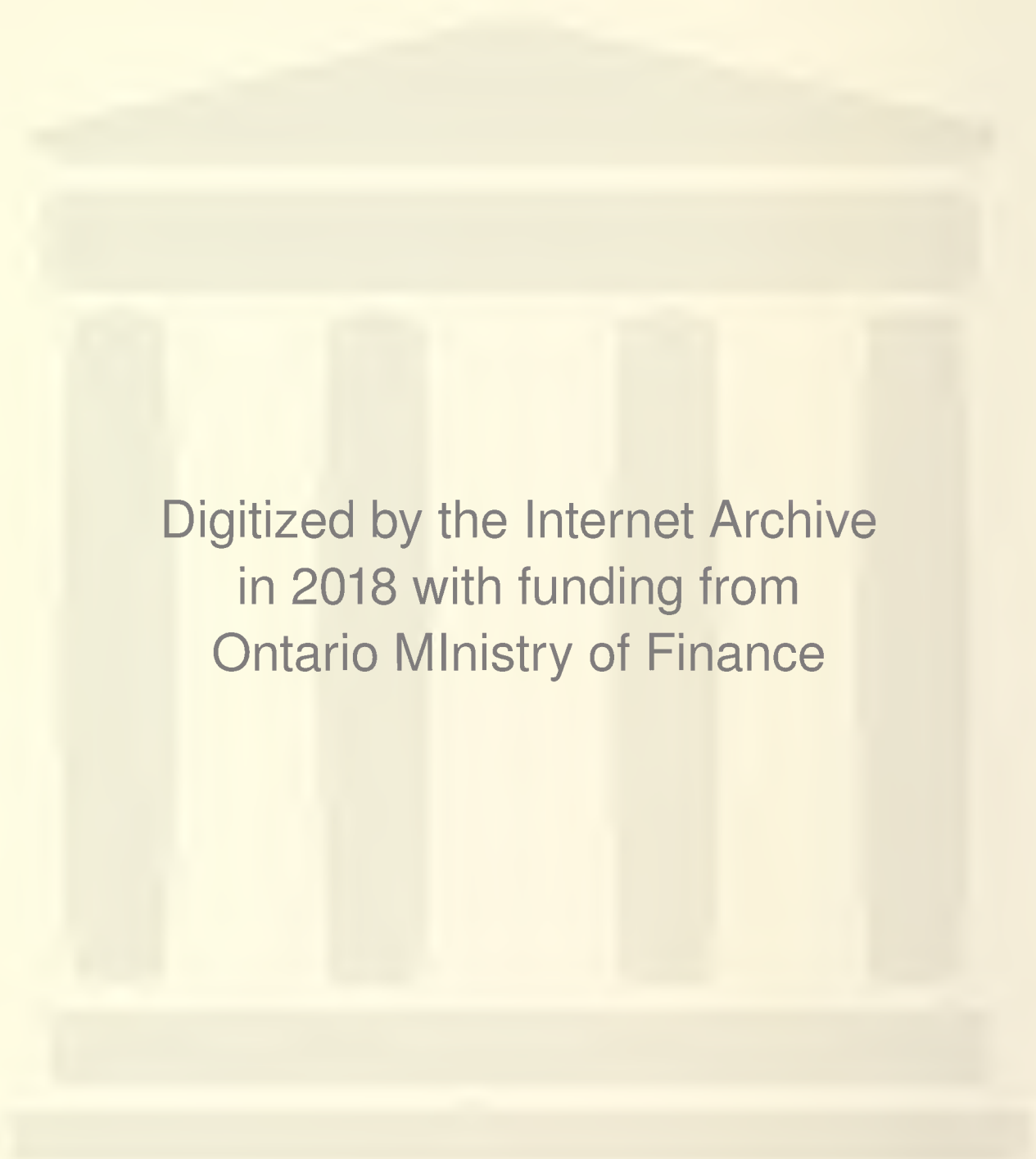

EQUALIZATION PAYMENTS:

Past, Present and Future

Thomas J. Courchene

Ontario Economic Council





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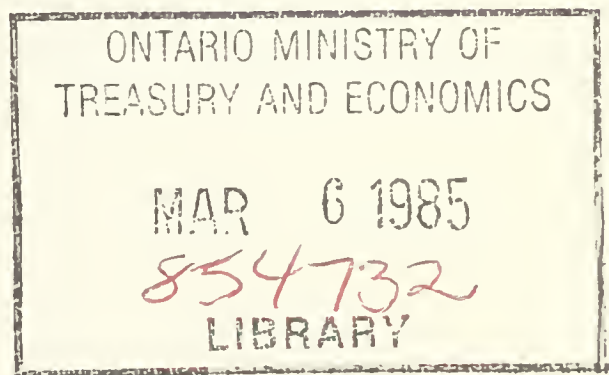
EQUALIZATION PAYMENTS: PAST, PRESENT, AND FUTURE

Equalization Payments: Past, Present, and Future

Thomas J. Courchene

Ontario Economic Council
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For
Douglas Clark

Canada's
'Mr. Equalization'

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Acknowledgments

I began working on this study in the spring of 1981. Originally, my intent was to produce a document that might contribute to the equalization negotiations associated with the 1982 revision of the fiscal arrangements. However, my subsequent appointment as chairman of the Ontario Economic Council put the project on hold for a time. In the interim, of course, Canada inaugurated its new five-province-standard approach to equalization. Hence the book had to be expanded to include a description and evaluation of the new program. I took this opportunity to also incorporate a more thorough review of both the historical and the theoretical underpinnings of equalization. It is my hope that in its updated and expanded form the study will serve as a useful background document for the 1987 revisions of the equalization and fiscal arrangements.

Literally dozens of people have made valuable contributions to this monograph. Douglas Hartle, then the research director of the OEC, was responsible for getting the project off the ground. Among those who commented on the theory portion of the analysis were Ken Norrie, Anthony Scott, Robin Boadway, Frank Flatters, Denis Gauthier, David Sewell, John Graham, Mike Percy, Sam Wilson, and Sam Bucovetsky. I should hasten to add that not all of these people would agree with the thrust of the theoretical sections of the study. Indeed, this is an understatement. It is likely that each of these persons would take strong exception to one aspect or another of the theoretical analysis.

Equalization payments

I am particularly thankful to those who went through the penultimate version of the manuscript—Richard Bird, Lorraine Eden, Douglas Clark, Henk Ploeger, Ron McGinley, James Lynn, Arthur Smith, Michael McKee, Kevin Dowd, Enid Slack, and David Conklin. The comments by Bird, Clark, and Eden were so thorough and well-documented that they led to a complete reworking of the manuscript, including a major reordering of the chapters. The number of errors and misconceptions that were thereby avoided is too large to count and too embarrassing to recount.

During the summer of 1981, Ian Skaith provided research assistance for several chapters and played a major role in the preparation of the historical overview. The following summer Kevin Dowd worked as a research assistant on the book. His interest in the study has continued through to the published version and he is co-author of the theoretical chapter. My daughter, Teresa, took over the research-assistant task in the summer of 1983. During my sabbatical year, 1982-83, which I spent at Queen's University, I had the good fortune to work with the University of Indiana's David Wildasin, who was also spending the year in Kingston. The technical appendix to the study reflects our joint effort.

The staff of the Ontario Economic Council provided incredible support and encouragement. It is a pleasure to acknowledge the contributions of Tom Gerylo, Jim Leahy, and Sylvia Machek, the word-processing crew, and the overall coordination by Sharon Wahl, Brenda Huff, Kathy Ashenden, and Adil Sayeed. Alex Scala, in his capacity as editor, did an admirable job of bringing internal consistency to a manuscript that originally consisted of numerous separate pieces drafted over a three-year period. The proofreading and tidying-up of numerous odds and ends was the responsibility of Sheila Richardson. Finally, David Conklin, the Council's research director, has played his typical role of reading each successive draft and making recommendations on matters ranging from problems of theoretical precision to questions of policy relevance.

I suspect that this is my last major foray into the area of equalization. My interest in the subject was kindled in 1967, when Al Johnson presented a paper at The University of Western Ontario on the then-proposed equalization formula. Over the years, I have been fortunate enough to link up with several people who shared my interest in equalization. The first of these was T. Russell Robinson.

Although we never got anything on this subject into print, it is fair to say that his knowledge of public finance provided me with a firm footing for following the development of equalization through the years. A special vote of thanks has to go to David Beavis and Glen Copplestone, who have co-authored earlier writings on equalization with me, major parts of which find their way into the present work. Economists such as Milton Moore, Paul Davenport, Stefan Dupré, Ed Safarian, Gail Cook, Sam Bucovetsky, Carl Beigie, Robert McLarty, and Ron Wirick, by virtue of their work on the subject of the federal-provincial fiscal interface, have also been of help to me in this project.

It is with great pleasure that I dedicate this book to Douglas H. Clark of the Federal Department of Finance. Douglas has wrestled with equalization concerns on virtually a daily basis for some twenty-six years, almost since the inception of Canada's equalization program. For those of us in the academic world who venture into the policy arena, the Douglas Clarks of the civil service—and there are a great many—are invaluable. They overlook our ignorance of institutional procedure time and time again and offer in return insight, information, and encouragement. I trust that I am speaking for all of us who have toiled in the equalization area in saying 'thank you' to Douglas. To be fair to him, however, I should note that I have incorporated only some of his many suggestions in the final draft, and that there are, accordingly, several sections in the text that he would probably not wish to be associated with.

Finally, it is important to emphasize that, in spite of my current position, the analysis that follows reflects my own views and not those of the Ontario Economic Council.

Candle Lake, Saskatchewan
Summer, 1984

PART I
INTRODUCTION AND OVERVIEW

1

Introduction

EQUALIZATION AND FEDERALISM

With the passage by the Parliament of Westminster of the Canada Act, 1982 and its proclamation in April of 1982 by Her Majesty Queen Elizabeth II, Canada finally completed the long-drawn-out process of patriating its constitution. Among the many noteworthy features of the new constitution was its enshrining, for the first time, of the principle of equalization. Subsection (2), Section 36 of Part III of the Constitution Act, 1982 states that:

Parliament and the Government of Canada are committed to the principle of making equalization payments to ensure that provincial governments have sufficient revenues to provide reasonably comparable levels of public services at reasonably comparable levels of taxation.

This provision gives constitutional recognition to a generally accepted practice in our federation. Since 1982 was the twenty-fifth anniversary of Canada's first formal equalization program, the embodiment of the equalization principle in the constitution took on added significance.

While it is true that equalization payments are an important part of the glue that binds us together as a nation, it is also true that there is no necessary role for equalization payments in a federal state. The Americans do not have an equalization program. The constitution of the German federation requires income transfers from the rich to the poor states. Equalization in the Australian context is accomplished

Equalization payments

via the transfer of income tax revenues to the states: the poorer states receive a larger per capita share.

Canada's equalization program is more comprehensive and more generous than equivalent programs in other federations. Effectively, equalization now takes into account all provincial and local revenues (some thirty-odd of them), thereby ensuring that each province's aggregate per capita revenues are brought up to some agreed-upon standard. Under the present program, the standard is established by applying national average tax rates to the average per capita tax base in five designated provinces (British Columbia, Saskatchewan, Manitoba, Quebec, and Ontario). In terms of the dollar amounts involved, two provinces (Newfoundland and Prince Edward Island) will receive roughly \$1,000 per capita in equalization payments for fiscal year 1983-84, with the remaining recipient provinces receiving lesser amounts.

One could discuss at considerable length the various dimensions of the Canadian equalization program—political, economic, historical, and, more recently, constitutional. Indeed, this is the purpose of the present study—to provide a comprehensive analysis of the theory and workings of Canada's equalization systems, past and present, with some reflections on options for the future. The remainder of this introductory chapter addresses the design of the analysis that follows.

OUTLINE OF THE STUDY

Part II: The history of equalization

Chapter 2 traces the evolution of equalization payments from the statutory subsidies that were part of the British North America Act to the new representative five-province-standard version of the program and to the enshrining of the principle of equalization in the constitution. Included in this historical chronicle are references to the Rowell-Sirois Commission's 'National Adjustment Grants', the forerunner of the modern equalization program, and to the many changes in the formal equalization program since its inception in 1957. While the focus of the remainder of the study will be on the *formal* equalization program, Chapter 2 discusses equalization in a far broader context. Guaranteeing all Canadians access to certain public services at average tax rates can be accomplished in ways other than via a formal equalization program. For example, a transfer of

constitutional responsibility for some expenditure areas from the provinces to the federal government would also tend to ensure that all Canadians had roughly equal access to these services. Similarly, the structure of major federal-provincial programs, such as funding for medicare and for post-secondary education, can at times incorporate 'equalizing' features. Thus, the historical survey addresses the broader range of interprovincial transfers of which the formal equalization program is now an integral part. Indeed, much of the analysis proceeds in terms of the quinquennial Fiscal Arrangements Acts, which provide the legislative framework for the equalization program. The chapter concludes with a brief outline of the new equalization program. This sets the stage for much of the rest of the book—a description and an evaluation of the transition from the old to the new program.

Part III: Equalization payments: theoretical underpinnings

Chapter 3 is devoted to an analysis of the theory of equalization. The first few sections of the analysis focus on those arguments for equalization that are primarily political in nature (e.g., the 'federalism' and 'nationhood' arguments). The remainder of the chapter deals in one way or another with what can be referred to as the 'economic' arguments for equalization—efficiency and equity. Much of this analysis is motivated by the recent flurry of research related to the economic underpinnings of equalization payments. Special consideration is given to the role of resource rents and the manner in which they might influence the conception and design of an equalization program. The chapter concludes with a review of the recent empirical literature relating to the impact of equalization payments on such things as the mobility of labour and capital across provinces.

Part IV: The way we were: the representative national-average standard (RNAS) equalization system

Chapters 4 and 5 focus on the previous (1977-82) equalization system. While this approach to equalization is often referred to as the 'representative tax system' approach, for the purposes of this monograph it will be referred to as the 'representative national-average standard', or RNAS for short. It may appear somewhat

Equalization payments

peculiar to spend considerable time and effort on a version of the equalization scheme that has now been superseded. The justification for such an approach is basically fourfold. First of all, one objective of the study is to describe and to comprehend the process by which Canada moved from the old to the new formula. For this purpose an understanding of what went before is essential. Second, the RNAS equalization formula effectively equalized revenues to the all-province or national-average level, whereas the new formula (referred to as the 'representative five-province standard' or RFPS approach) equalizes revenues to the average level of five 'representative' provinces. Depending on one's perspective, this can be viewed as either a backward or a forward step in the conceptual evolution of equalization payments. In any event, the likelihood is that future alterations in the formula will attempt to combine selected features of *both* the old and new approaches. Third, many of the theoretical features and the incentives embodied in the old formula carry over to the new version. Indeed, an essential component of the evaluation of the RFPS approach will be to compare and contrast it with the RNAS version. Finally, while there was general agreement that the RNAS formula had served the nation well, there was also an emerging consensus that there were problems associated with the RNAS that necessitated some revision of the equalization system. Part IV focuses in detail on these problems. One of the major conclusions of this book is that the new equalization program is probably best understood not so much in terms of historical or theoretical considerations but rather as an ingenious solution to the problems that were perceived to beset the RNAS approach.

Part V: Options forgone

Parts II, III, and IV of the study establish, respectively, the historical, theoretical, and practical background for evaluating the new equalization program. Part V focuses on some of the many alternative approaches to equalization that were suggested from various quarters but were, for one reason or another, rejected. These proposals are of interest in their own right. They are also of interest because they are, for the most part, geared to solving one or more of the problems associated with the previous formula. Most of these proposals will be

also evaluated in the light of the theoretical background developed in Chapter 3.

Separate chapters are devoted to three types of forgone options. Chapter 7 deals with 'macro' formulas. The essence of a macro formula is the replacement of the thirty-odd individual tax bases that make up the tax approach by a single (or *macro*) tax base, such as personal income. Chapter 8 focuses on the range of alternatives that have been suggested for accommodating resource revenues. The analysis includes discussions of 'two-tier systems', 'interprovincial revenue-sharing pools', and proposals that attempt to circumvent the problems associated with the fact that resources are frequently provincially owned and the fact that Section 125 of the constitution states, in effect, that the Crown cannot tax the Crown. As in the previous chapter, these alternatives are accompanied, wherever possible, by numerical analyses that allow comparison with the new equalization formula.

Chapter 9 presents the outlines of an approach to equalization that is designed to reflect, as far as is possible, the formal wording of the new constitutional provision with respect to equalization. Whereas all other equalization programs (actual or potential) discussed in this study focus on equalizing revenues, this approach deals with both the revenue and expenditure sides of provincial budgets. In the equalization jargon, it embraces the notion of 'fiscal need'—equalization payments are determined by a province's expenditure needs in relation to its revenue means. Included in the chapter is a brief discussion of the Australian equalization program, which is modelled on the concept of fiscal need.

The last chapter in Part V reviews two quasi-official documents that appeared during the period leading up to the enacting of the new equalization program. These are the report of the Parliamentary Task Force on Federal-Provincial Fiscal Arrangements and the report on refinancing confederation by the Economic Council of Canada.

Part VI: The 1982-87 equalization formula: the representative five-province standard

Three chapters are devoted to Canada's new equalization formula. Chapter 11 traces developments from the initial federal proposal—the

Equalization payments

Ontario standard, introduced in the November 1981 federal budget—through to the passage of the 1982 Fiscal Arrangements Act, which incorporates the new program, the representative five-province-standard approach to equalization.

Chapter 12 focuses in detail on the workings of the new program. It includes a series of tables that present equalization estimates by province for fiscal year 1982-83 and compares them with the flows that would have occurred had the RNAS system been extended.

The final substantive chapter evaluates the new program. This evaluation is conducted with reference to both the previous system and to the 'options forgone'. Moreover, attention is directed to the degree to which the new program conforms to the theoretical underpinnings of equalization as outlined in Chapter 3.

Part VII: Conclusion

A brief conclusion completes the study. Its role is to summarize where we have been and where we are likely to go with respect to equalization. In addition, the discussion reverts once again to the more general context of evaluating the past and future role for equalization within the framework of an economic theory of federalism.

THE ANATOMY OF AN EQUALIZATION PROGRAM

This outline may leave the reader with the impression that there are literally countless options available when it comes to designing an equalization program. And no doubt this is true. It is also true, however, that this varied menu of alternatives arises from juxtaposing a much smaller number of key components. Generally speaking, there are a few basic questions that can be asked about any equalization program: What determines the size of the equalization pie? How is the pie allocated? How is the program funded?

In the Canadian context, the size and the allocation of equalization have tended to be jointly determined. Hence, when evaluating the alternatives in this study one can normally ask the following four questions:

- 1 What revenue (or expenditure) categories will be eligible for equalization?

- 2 How will provincial fiscal capacities (deficiencies and excesses) be defined?
- 3 What is the standard for equalization? That is, up to what level will provincial revenues be equalized?
- 4 How will the program be funded?

All of the equalization formulae that appear in this book can be analysed or evaluated in terms of how they deal with these four issues. In order to maintain perspective while going from proposal to proposal, the reader may wish to refer back to these four principles from time to time. For my part, I shall also attempt to address the various alternatives from this vantage point.

PART II
THE HISTORY OF EQUALIZATION

2

The evolution of equalization payments

The purpose of this chapter is to trace the historical roots of Canada's equalization program. Appropriately enough, the historical survey begins with the provisions of the British North America (BNA) Act (now referred to as the Constitution Act, 1867) and ends with the enshrining of equalization in the Constitution Act, 1982. For the purposes of this overview, 'equalization' will be interpreted rather broadly. Canadians typically view equalization payments as transfers to 'poor' provinces in order that they may provide some basic level of public services without resorting to unduly high tax rates. However, this is a rather restrictive definition of equalization because the provision of a basic level of public services to citizens in the 'poor' provinces can be accomplished by means other than a *formal* equalization program. For example, in 1940 (effective 1941) the BNA Act was amended to allow the Parliament of Canada to take over responsibility for the provision of unemployment insurance. This transfer of power from the provinces to Ottawa implies that citizens in all provinces will have access to this basic service without the burden of unduly high taxes, and thus it accomplishes the goals associated with equalization. Likewise, the 1977 Fiscal Arrangements Act contained a major overhaul of the so-called 'established programs' (medicare, hospital insurance, and post-secondary education). Originally, the costs of these programs were shared equally by the provinces and the federal government. Under the 1977 legislation the federal contributions became, effectively, equal-per-capita unconditional grants to the provinces. Most of the provinces that

Equalization payments

presently qualify for equalization benefited substantially under the new arrangements. This too amounts to an equalization-like transfer: the additional monies allow these provinces to provide more in the way of basic services without raising tax rates. Thus, it is both appropriate and necessary to document the development of the formal equalization formula in the context of the broad range of other policy instruments designed to provide more equal access to public services for all Canadians.

This being said, let me assure the reader that I am not going to review the entire history of federal-provincial relations. Those interested in a blow-by-blow account of the evolution of the financial aspects of fiscal federalism should consult Moore, Perry, and Beach (1966).¹ My purpose is far more limited—namely, to highlight the historical developments necessary to an understanding of the role of equalization payments in our federation.

THE STATUTORY SUBSIDIES

The BNA Act gave the federal government the power to raise revenue by 'any mode of taxation'. It restricted the provinces to levying direct taxes and to raising revenues from the public domain. In 1867, and for a long time thereafter, the principal sources of government revenue were customs and excises. Since these were *indirect* taxes, they were the preserve of the federal government. This meant that the provinces lost their principal source of revenue: prior to Confederation, excise taxes constituted about 80 per cent of the colonies' revenues. Thus, some method had to be devised to ensure that the new provinces had sufficient funds to carry out their constitutional responsibilities.

This goal was accomplished in part through a series of grants and subsidies. There were basically three grant schemes. One was intended to support the expenses of provincial governments. Under this scheme, Ontario received \$80,000, Quebec \$70,000, Nova Scotia \$60,000, and New Brunswick \$50,000. A second subsidy was the federal government's assumption of the debts of the four provinces. However, by far the most significant grants were the per capita or 'statutory' subsidies: each province received 80 cents per capita up to a maximum of 400,000 persons. The sentiment at the time of Confederation was for uniform treatment, but because the financial positions of the two Maritime Provinces were worse than those of

Quebec and Ontario the ceiling of 400,000 persons was imposed. Moreover, New Brunswick was given a special grant of \$63,000 per year for ten years, and later Nova Scotia was given an annual grant of \$83,000, also for ten years.

While it may be stretching the point somewhat, it is possible to argue that the concept of equalization is embodied in these subsidies. In effect, they were tailored to provide more assistance to the two Maritime Provinces than to the central provinces. This is especially true of the special grants made in recognition of fiscal need to Nova Scotia and New Brunswick. Thus, those interested in tracing the concept of equalization payments to provinces back to the BNA Act need look no further than these statutory subsidies.

It is interesting to note that in the immediate post-Confederation years the series of grants and subsidies incorporated in the BNA Act accounted for between 80 and 90 per cent of the provincial revenues of Nova Scotia and New Brunswick and between one-half and two-thirds of revenues in Ontario and Quebec (Moore, Perry, and Beach 1966, 2). Subsidies paid to the provinces represented about 20 per cent of federal revenues.

In spite of the provision that these transfers to the provinces were 'to be in full settlement of all future demands upon the General Government for local purposes', such was not to be the case. This is hardly surprising, since, as new provinces entered the federation, amendments to the subsidy schemes became virtually inevitable. Three revisions were particularly important. In 1907, the subsidy aspect of the BNA Act was amended to increase the ceiling for the 80 cent per capita subsidy from 400,000 to 2.5 million persons, and to add a 60 cent per capita subsidy for population in excess of this ceiling. After this 1907 revision, statutory subsidies amounted to about \$9 million, compared with \$3 million at the time of Confederation.

The other two modifications of the statutory subsidies prior to 1940 were the result of investigations into the fiscal needs of particular provinces. In 1926, the Duncan Royal Commission recommended increased unconditional grants to the three Maritime Provinces that effectively doubled their statutory subsidies. The White Royal Commission of 1934 recommended substantial hikes in the Duncan payment to the Maritime Provinces and also instituted special grants to the depression-ridden prairies. Because of disastrous crop failures, Saskatchewan was provided with additional grants of \$2 million in

Equalization payments

1938 and 1939. All of these measures were, in fact, intended to assist those provinces whose fiscal capacities were such that they could not provide services to their citizens comparable to those available in central Canada, although it was not until the Rowell-Sirois Commission of 1937 that this phraseology was used.

As of 1939, these statutory subsidies and special grants totalled nearly \$22 million. As late as 1926, they constituted almost the entire federal transfer to the provinces (see Table 2.1). By 1939, however, they were no longer the main sources of federal grants to the provinces. It is now time to focus on some of these other aspects of federal-provincial finance.

THE GROWTH OF PROVINCIAL DIRECT TAXES AND THE INTRODUCTION OF FEDERAL CONDITIONAL GRANTS

Despite the increases in the statutory subsidies, federal transfers as a percentage of provincial revenues fell almost continuously from 1867 to 1930. Figure 2.1 reveals this very clearly. In 1868, federal transfers accounted for 55 per cent of total provincial revenues. By 1930, this figure had fallen to less than 10 per cent. Transfers to the provinces also fell as a percentage of federal revenues: from 20 per cent in 1868 to less than 5 per cent in 1930. What these two curves imply is that overall provincial revenues in this period expanded considerably faster than federal expenditures. Or, to phrase the point differently, provincial responsibilities, which were modest at the time of Confederation and expected to remain so, expanded well beyond the expectations and probably beyond the desires of the founding fathers. Figure 2.2 reflects part of this mushrooming of provincial revenues and responsibilities, although the data in the figure only begin in 1925. The provincial share of total *own-source* revenues rose from under 55 per cent in 1925 to nearly 70 per cent at the onset of the Great Depression (Panel A of Figure 2.2). It will provide some perspective to note that the provincial share of own-source revenues at the time of Confederation was only 27 per cent. In one sense, the early 1930s represented the high point of provincial financial autonomy in Canada. Even in 1980, the provincial/local government sector collected nowhere near 70 per cent of aggregate own-source government revenues.

TABLE 2.1

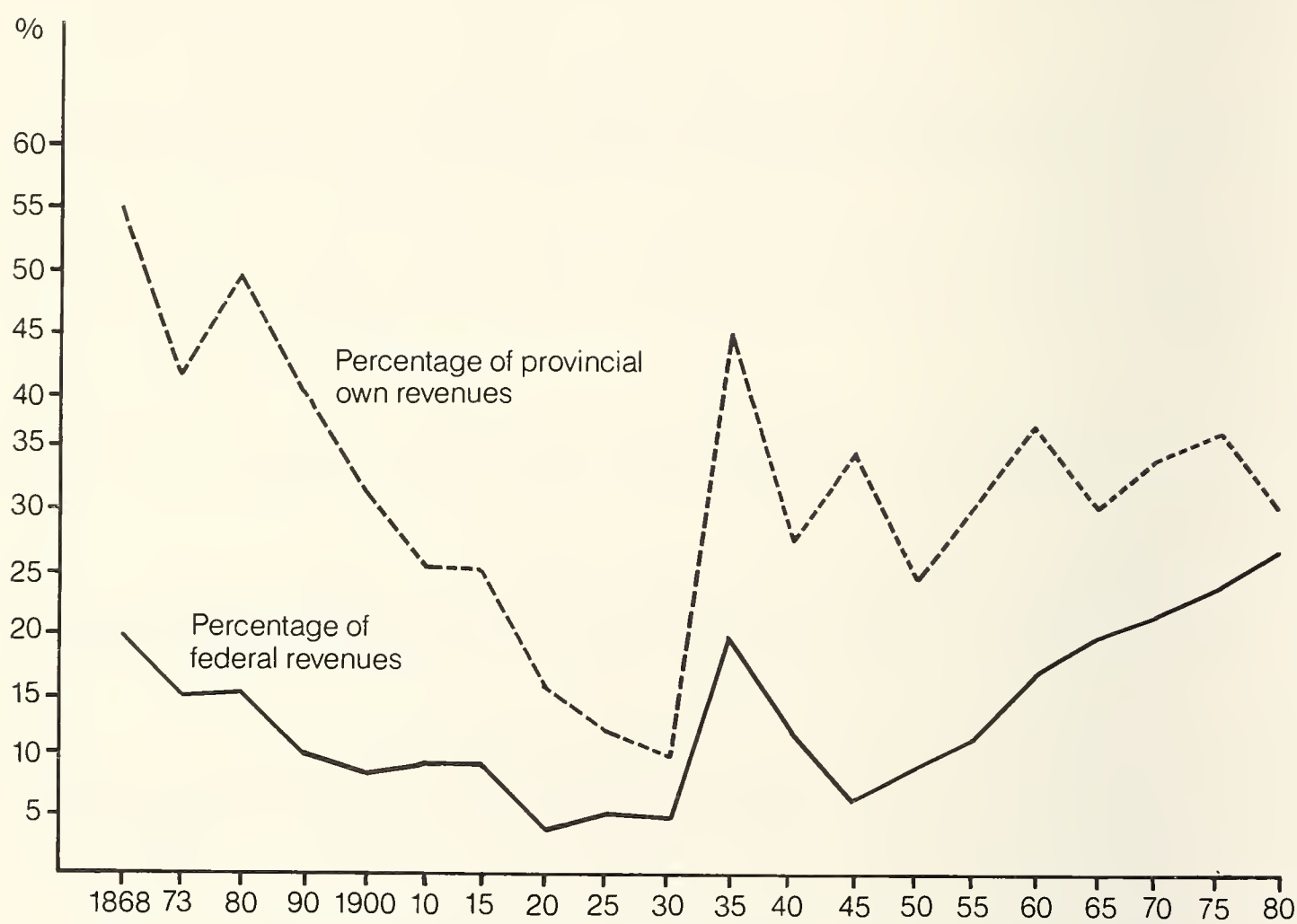
Federal statutory subsidies, grants, and conditional subsidies paid to provinces 1868-1946 (\$ millions)

Fiscal year	Statutory subsidies	Special grants	Old age and blind pensions	Relief	Other	Sub-total	Wartime tax agreements	Gasoline revenue guarantee	Total
1868-1912	203.5	—	—	—	—	—	—	—	203.5
1913	13.2	—	—	—	.5	.5	—	—	13.7
1914	11.3	—	—	—	.7	.7	—	—	12.0
1915	11.5	—	—	—	.8	.8	—	—	12.3
1916	11.5	—	—	—	.9	.9	—	—	12.4
1917	11.5	—	—	—	1.0	1.0	—	—	12.5
1918	11.4	—	—	—	1.1	1.1	—	—	12.5
1919	11.3	—	—	—	1.0	1.0	—	—	12.3
1920	11.5	—	—	—	1.7	1.7	—	—	13.2
1921	11.5	—	—	.3	2.6	2.9	—	—	14.4
1922	12.2	—	—	.5	5.6	6.1	—	—	18.3
1923	12.2	—	—	.9	8.1	9.0	—	—	21.2
1924	12.4	—	—	—	6.2	6.2	—	—	18.6
1925	12.3	—	—	—	4.1	4.1	—	—	16.4
1926	12.4	—	—	—	2.9	2.9	—	—	15.3
1927	12.5	—	—	.7	1.7	2.4	—	—	14.9
1928	12.5	1.6	.1	—	2.5	2.6	—	—	16.7
1929	12.6	1.6	.8	—	1.5	2.3	—	—	16.5
1930	12.5	1.6	1.5	—	.7	2.2	—	—	16.3
1931	17.4	1.6	5.6	3.2	.7	9.5	—	—	28.5
1932	13.7	1.6	10.0	33.5	.6	44.1	—	—	59.4
1933	13.7	1.6	11.5	33.8	.4	45.7	—	—	61.0
1934	13.7	1.6	12.3	28.0	.3	40.6	—	—	55.9
1935	13.8	1.6	14.9	43.4	.3	58.6	—	—	74.0
1936	13.8	4.0	16.8	40.7	.3	57.8	—	—	75.6
1937	13.7	3.2	21.1	51.5	.3	72.9	—	—	89.8
1938	13.7	8.1	28.7	53.1	.7	82.5	—	—	104.3
1939	13.7	8.1	29.0	33.8	1.0	63.8	—	—	85.6
1940	13.8	6.1	30.0	29.3	1.2	60.5	—	—	80.4
1941	13.8	6.1	30.0	16.6	2.9	49.5	—	—	69.4
1942	14.4	—	29.6	1.7	6.8	38.1	22.9	—	75.4
1943	14.5	—	30.0	.2	7.4	37.6	87.7	8.3	148.1
1944	14.4	—	33.4	.1	7.0	40.5	85.4	11.8	152.1
1945	14.4	—	41.0	—	4.6	45.6	84.8	10.4	155.2
1946	14.4	—	42.8	—	7.3	50.1	85.0	3.7	153.2

SOURCE: Moore, Perry, and Beach (1966, Tables 2 and 8).

Equalization payments

Figure 2.1
Federal payments to provinces as a percentage of federal and provincial revenues



SOURCE: Author's own calculations.

Panel B of Figure 2.2 presents the federal and provincial/local shares *after* intergovernmental transfers. The provincial/local peak of close to 80 per cent came in the early 1930s. Once again the present level is lower, but not by nearly as much as it is in the case of own-source revenues. Obviously this difference reflects the substantial role currently played by federal transfers to the provinces. It is useful to note that the division in 1869 was 42 per cent for the provinces and 58 per cent for the central government.

The massive centralization of government finances that occurred during the Second World War, which is captured dramatically in Figure 2.2, will be dealt with later. Our present concern is with the pre-war developments and particularly with the decline in federal transfers as a proportion of provincial revenues up to 1930 and the

The evolution of equalization payments

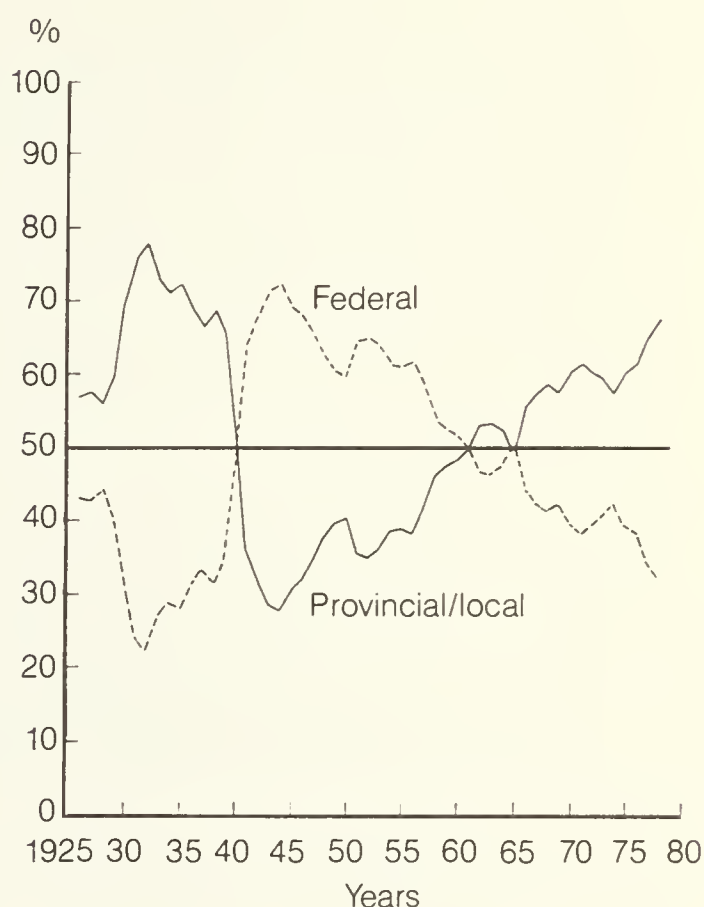
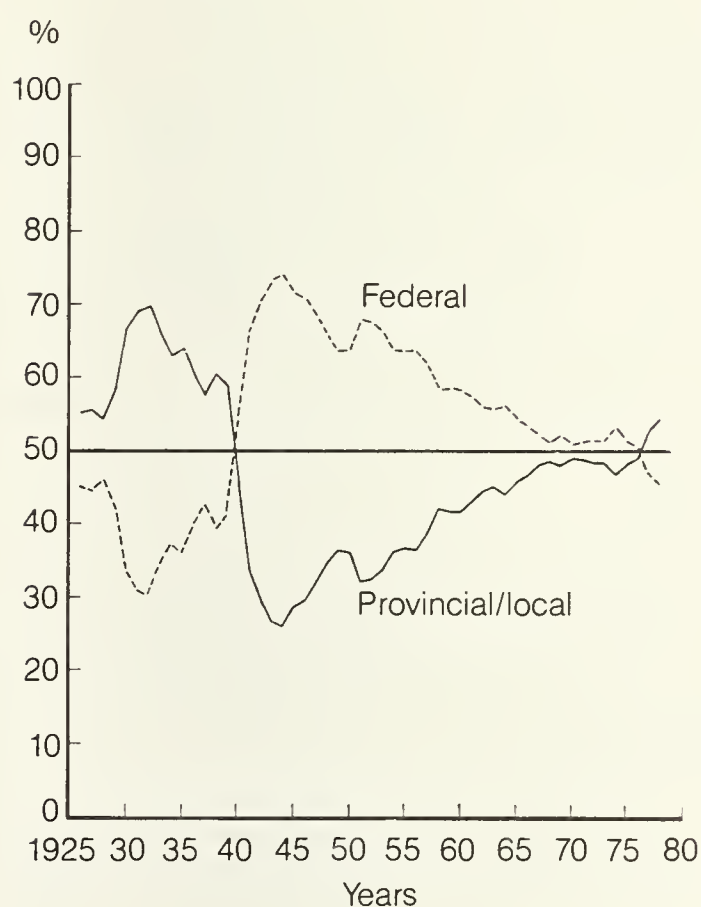
Figure 2.2

Panel A

Distribution of own source revenues
by order of government
(national accounts basis)

Panel B

Distribution of revenue after transfers
by order of government
(national accounts basis)



SOURCE: Bastien (1981), Graphs 1 and 2.

sharp reversal of this decline during the Depression.

As noted above, provincial revenues grew much faster than federal revenues over the first half-century of Confederation. The bulk of this growth occurred because the provinces, hard pressed to meet their expenditure responsibilities, took rapidly increasing advantage of their powers of direct taxation. They achieved substantial revenues from new sources: taxes on gasoline, monopoly control over the sale of liquor, and revenues from vehicle licenses.

Although the federal government also entered the direct taxation field (with a tax on corporate profits in 1916 and a personal income tax in 1917), indirect taxes remained the mainstay of federal revenues: as late as 1921, 90 per cent of federal revenue was obtained from indirect taxes (Strick 1973, 97). One notable piece of information regarding

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the growth of provincial/local revenues relative to federal revenues is that over the decade of the 1920s the former doubled whereas the latter actually declined.

All changed during the Depression:

Both the federal and provincial governments attempted to prevent revenues from declining during the Depression by increasing taxes. The federal government increased its sales tax from 1 per cent to 8 per cent, doubled the personal income tax, and imposed new import duties. The provinces increased the gasoline sales tax by 50 per cent and raised succession duties and flat-rate taxes on corporations. By 1940, all provinces were taxing personal and corporate incomes, and Saskatchewan and Quebec had introduced a retail sales tax. There was little or no cooperation between the federal and provincial governments in taxation as both governments scrambled for revenues and produced a chaotic tax jungle of joint occupancy, high tax rates, duplication of administrative machinery, and regressiveness in taxation which contributed to the severity of the Depression by undermining business confidence and incentives. (Strick 1973, 98)

This was part of the background that led to the creation of the Royal Commission on Dominion-Provincial Relations (the Rowell-Sirois Commission), which will be discussed shortly.

The 'uncoordinated efforts of all governments to maintain solvency', which reduced 'the tax system to chaos' (Moore, Perry, and Beach 1966, 10) was only one impact of the Depression on intergovernmental finance. The Depression's other major impact was that it forced the federal government to greatly increase its intergovernmental and interregional transfers of funds. Some of the transfers fell under the heading of statutory subsidies. However, as Table 2.1 makes very evident, these transfers were quickly dwarfed by Ottawa's efforts in the areas of old-age pensions and relief. The 1926 old-age pension plan was not the first federal shared-cost or conditional grant initiative, but it was certainly the most important, since it represented the federal government's first major experiment in the social welfare area. This 50 per cent cost-sharing arrangement with the provinces was superseded in 1952, when, by virtue of a 1951 amendment to the BNA Act, Ottawa assumed full responsibility for

old-age pensions. Although this action may appear to be unrelated to the concept of equalization, the assumption of a provincial responsibility by the federal government did accomplish much the same end: all citizens, even the residents of poor provinces, now had equal access to the transferred services.

Much the same route was followed with respect to a significant portion of the other major federal government transfer to the provinces during the Depression—relief for the unemployed. Payments of nearly \$500 million were made to the provincial governments to help them finance their unemployment assistance programs during the 1930s.² In 1940, an amendment to the BNA Act transferred responsibility for unemployment insurance from the provincial to the federal domain.

As Figure 2.1 indicates, federal transfers to the provinces as a proportion of provincial revenues mushroomed from 10 per cent to 45 per cent between 1930 and 1935. However, the rise in the proportion of federal revenues devoted to provincial transfers was much smaller, a circumstance that reflects both the greater collapse of provincial tax bases during this period and Ottawa's resurgence as a tax collector.

Thus far, the analysis has provided some evidence that the concept of equalization can be traced to the BNA Act itself, and it has also identified two areas (old-age pensions and unemployment insurance) where equalization in the very broad sense of the term can be said to have been achieved. However, the philosophical underpinnings of Canada's present equalization programs are really to be found in the work of the Rowell-Sirois Commission, to which I now turn.

THE ROWELL-SIROIS COMMISSION

The Royal Commission on Dominion-Provincial Relations (more commonly referred to as the Rowell-Sirois Commission) was appointed in 1937. Its terms of reference were:

- 1 to examine the constitutional allocation of revenue sources and governmental burdens to the Dominion and provincial governments...and its suitability to present conditions...;
- 2 to investigate the character and amount of taxes collected from the people of Canada...and to determine whether taxation as presently allocated and imposed is as equitable and as efficient as can be devised;

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3 to examine public expenditures and public debts in general, in order to determine whether the present division of the burden of government is equitable and conducive to efficient administration, and to determine the ability of the Dominion and provincial governments to discharge their governmental responsibilities within the framework of the present allocation of public functions and powers, or on the basis of some form of reallocation thereof;

4 to investigate Dominion subsidies and grants to provincial governments. (Canada 1939, 1)

The report of the Commission remains to this day an exciting, valuable, and relevant document. Among the Commission's recommendations were the following:

—that the federal government assume the responsibilities associated with unemployment relief and old-age pensions. [Amendments to the BNA Act, in 1940 and 1952 respectively, incorporated this recommendation.]

—that the provinces no longer tax incomes of individuals and corporations because these 'national' areas of taxation would be more efficiently administered by the federal government.

—that the 'chaotic and illogical' statutory grant system be replaced with 'national adjustment grants' to be made to the poorest provinces so that they could provide public services of average quality without placing an undue tax burden on their citizens. (Bastien 1981, 10-11)

In addition, and partly as a *quid pro quo* to the provinces for relinquishing the personal and corporate income taxes, the Commission proposed that the Dominion assume all outstanding provincial debts. This was not a small undertaking, since in 1937 debt-servicing absorbed over one-fifth of provincial revenues.

The report contained many other recommendations and countless insights into the political, financial, and socioeconomic interactions between the two levels of government. While these recommendations are not entirely peripheral to the present volume, even a short survey of them would take us too far afield. However, it is instructive to note in passing that the recommendation for transferring the income taxes to the federal level referred to both fiscal efficiency and tax harmonization and thus is relevant to the current concern over the

fragmentation of the 'internal common market'. The one area of the report that must be singled out for elaboration is the recommendation relating to the National Adjustment Grants, because it is, in fact, a recommendation for equalization payments.

The National Adjustment Grants

The rationale for the National Adjustment Grants is best explained in the Commission's own words:

The constitutional division of taxing powers, applied to the existing regional distribution of taxable income, has produced surpluses in some provincial budgets, and in others deficits which have inevitably been reflected in reductions in those community services which Canadians have come to look on as the minimum which their governments should supply. As a result Canadian citizens in some provinces are receiving educational, health, and other social services much inferior to those in other provinces and...Canadian citizens in some provinces are required to contribute a much larger portion of their income to the government of the province than those in other provinces. (Canada 1939, Book II, 79)

In order to meet the desirable goal of 'average standards of services in every province' (ibid., 83), the Commission recommended:

- a National Adjustment Grant for certain provinces;
- an emergency grant if made necessary by abnormal conditions.

The National Adjustment Grant would be irreducible. However, subject to review by an independent advisory commission every five years, an increment to the basic grant could be made whenever a 'provincial government established that it could not supply Canadian average standards of service and balance its budget without taxation (provincial and municipal) appreciably exceeding the national average in relation to income' (ibid.). Note the similarity of this phraseology to that underlying the formal equalization program and to the equalization provision now enshrined in the constitution.

National Adjustment Grants were recommended for six provinces. Ontario, British Columbia, and Alberta were deemed by the

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Commission to be able to provide Canadian-average levels of services without the aid of these grants. (Newfoundland, of course, was not yet part of Canada.)

There was no specific formula for calculating the grants. Rather, the Commission delved into the nitty-gritty of each province's financial status and in effect came up with grants based on *fiscal need*. In this very important sense, the National Adjustment Grants would appear to have been much more in keeping with the equalization provision in the constitution than are the current equalization flows. Some elaboration is necessary here. As will be explained in detail later, the various equalization programs have tended to bring all provinces' revenues up to some 'standard', frequently a national-average standard. The expenditure needs of the provinces are implicitly assumed to be identical in per capita terms. The concept of *fiscal need*, in the context of equalization, refers to the *expenditure needs* of the provinces in relation to their *revenue means*. The consequences of explicitly incorporating fiscal need into an equalization program are explored in part in Chapter 5 below. Moreover, Chapter 9 attempts to devise an equalization program that incorporates both expenditure needs and revenue means. The intriguing feature of the National Adjustment Grants was that they recognized the desirability of evaluating both the expenditure needs and the revenue means of the provinces in determining the dollar value of the transfers. In regard to expenditure needs, the Commission was concerned most with ensuring average levels of services for education, welfare, and what it referred to as 'development expenditure'. Specifically, it recommended that

all provincial governments be put in a financial position, by National Adjustment Grants from the Dominion, to supply education and welfare services, equivalent in quality (although not necessarily in cost) to the national average, and to maintain developmental expenditures at their individual 1928-31 averages. (Ibid.)

In determining the revenue means component of fiscal need, the Commission looked at each province individually and assessed its revenue-raising capacity. It even produced a table showing the increase in average family taxation by province required to place the

provincial and municipal budgets in the same position as they would be under the National Adjustment Grants. It is instructive to note that the evaluation of expenditure needs and revenue means took into account both the provincial and municipal levels and not just the former, as was essentially the case under the equalization system prior to the 1982 modifications.

In describing how the proposed five-year revisions would be evaluated, the Commission indicated two reasons why a province that did not share in the general prosperity of the other provinces would receive an increased grant:

The prosperous provinces will tend to expand their social services and so raise the national average; the provincial and municipal taxation in the prosperous provinces will become a decreasing proportion of the income of their people and a lower Canadian standard will thus be set as regards weight of taxation. (Ibid., 85)

Unconditionality of the grants

The Rowell-Sirois Report is often viewed as a rather centralist document. And in part it is, since the Commission not only called for the transfer of old-age pensions and unemployment insurance to the federal level but also recommended that the provinces turn over their income tax fields to Ottawa. However, the Commission was also a staunch defender of provincial autonomy in the areas that it deemed to fall under provincial jurisdiction. The following two quotations make this very evident:

The Commission's plan seeks to ensure to every province a real and not illusory autonomy by guaranteeing to it, free from conditions or control, the revenues necessary to perform those functions which relate to its cultural and social development. (Ibid., 80)

This was coupled with an even stronger assertion of the *unconditional* nature of the grants and, therefore, the priority of provincial preferences:

It should be made clear that while the adjustment grant proposed is designed to enable a province to provide adequate

services (at the average Canadian standard) without excessive taxation (on the average Canadian basis) the freedom of action of a province is in no way impaired. *If a province chooses to provide inferior services and impose lower taxation it is free to do so, or it may provide better services than the national average if its people are willing to be taxed accordingly, or it may, for example, starve its roads and improve its education, or starve its education and improve its roads....* (Ibid., 84; emphasis added)

This, then, is a description of, and the rationale for, the National Adjustment Grants as recommended by the Rowell-Sirois Commission. The Commission was obviously willing to do what no one in Canada appears willing to do today, namely, to design grants that would take into account both expenditure needs and revenue means. Of course, the designing of the grants would have been a highly subjective process, since there was no 'formula' such that two people would come up with the same grant figures for any given province.

Despite the fact that the National Adjustment Grants have taken up so much of our attention, the Commission's recommendations were *not implemented*. It was not until 1957 that Canada adopted a formal equalization program. Nonetheless, the theorizing of the Rowell-Sirois Commission still pervades the federal-provincial scene. With respect to equalization, this influence is most evident in the fact that the wording of the equalization provision in the Constitution Act, 1982 is virtually identical to the wording used by the Commission in discussing the National Adjustment Grants.

One final comment. In recommending that Ottawa take over responsibility for old-age pensions and unemployment insurance, the Commission fully recognized that this was 'equalization' in the broad sense—that is, it would give people of all provinces access to a uniform level of services without undue taxation (ibid, 81). The Commission did not recommend this route for the provision of other social services because it viewed them as being clearly in the *provincial* domain and most appropriately handled within the framework of the various provinces' conceptions of their own social, economic, and cultural needs.

THE TAX RENTAL PERIOD: 1941-57³

The 1941 agreement

Ottawa convened a federal-provincial conference in January 1941, with the intent of implementing the recommendations of the Rowell-Sirois Commission. The provinces rejected the proposals, arguing, in part, that they represented an unwarranted centralization of power. However, the financial exigencies of the war effort led the federal government to propose, later in the year, that the provinces 'rent' to Ottawa the personal and corporate income tax bases for the duration of the war. And the provinces agreed.

In return for withdrawing from these tax fields, the provinces were allowed to opt for either of the following annual 'rental' payments:

- the revenue yield within the province in 1941 from the vacated tax fields (selected by Quebec, Ontario, Manitoba, Alberta, and British Columbia); or
- the net cost of servicing the provincial debt for the fiscal year 1940-41, less succession duties collected in that year (selected by Saskatchewan and the three Maritime Provinces).

The statutory subsidies also remained, and in addition the federal government guaranteed that provincial revenues from liquor and gasoline sales would not fall below the 1940 level.

Despite the fact that the provinces initially rejected the Rowell-Sirois proposals, the effect of this 'temporary' wartime agreement was indeed to implement many of them. 'Patriotism accomplished what financial reasoning could not.'⁴

It is possible to argue that the availability of a choice of options embodied some consideration of fiscal need and, hence, some aspects of equalization. However, the first option was in effect the antithesis of equalization—each province got the revenues generated *within its boundaries*. Data relating to the financial implications of the wartime agreements are given in Table 2.1.

The tax rental agreements: 1947-52

Not surprisingly, Ottawa grew rather fond of the tax rental scheme and wished to see it continue into the postwar period. In addition,

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another factor now entered the picture—the Keynesian economic philosophy and the stabilization role it assigned to fiscal policy. Close upon the heels of its White Paper on Employment and Income in 1945, the federal government convened a Dominion-Provincial Conference on Reconstruction, at which it proposed a whole set of measures aimed at supporting postwar economic activity. It is convenient to refer to Bastien's comments on this conference:

It suggested the establishment of a nationwide old-age pension plan, an unemployment insurance plan and a program of financial assistance to those provinces and municipalities willing to make public investments designed to stabilize the economy. The federal government also proposed various shared-cost programs in the areas of mental health, vocational training, and research. The recommendation respecting financing was that the provincial governments continue to leave the personal income tax and succession duty fields entirely to the federal government in return for rental payments calculated essentially on the basis of provincial population. (1981, 14)

The provinces, perhaps not surprisingly, reacted rather negatively to this package. Bastien's assessment is particularly insightful:

These proposals upset the whole concept of federalism on which relations between the two orders of government had been based up to that time. By expanding the number and value of shared-cost programs, the federal government was suggesting that *the principle of exclusive responsibility and complete independence of action of each order of government was no longer valid*. The programs also implied that economic and social policies had become closely intertwined. Furthermore, the federal recommendations required that *the different sources of revenue no longer be considered from a purely constitutional point of view, but in terms of their usefulness as macroeconomic management tools*. (Ibid.; emphasis added)

The new interest in 'macroeconomic management tools' reflects the Keynesian influence.

The evolution of equalization payments

Ottawa persisted in its efforts to maintain control of the income taxes, and in 1947 it presented the provinces with the following options (Moore, Perry, and Beach 1966, 29):

- A grant of \$12.75 per capita based on the 1942 population of the province, 50 per cent of provincial income and corporation tax revenue for fiscal year 1940-41, and statutory subsidies based on the 1947 payments.

- A grant of \$15 per capita based on the 1942 population plus statutory subsidies based on the 1947 payments.

- Guaranteed minimum annual payments of \$2,100,000. This option was designed specifically for Prince Edward Island.

After 1947 all payments would increase with provincial population and GNP (based on a three-year average).

Nova Scotia and Saskatchewan chose the second option. British Columbia, Alberta, Manitoba, and New Brunswick found the first option more advantageous. Quebec and Ontario declined to enter the agreement. Instead, they imposed a 7 per cent tax on corporate income and continued to levy succession duties.⁵ Newfoundland signed up when it became a province in 1949. The agreements lasted until 1952. Data for the tax rental transfers over 1947-52 appear in the last column in Table 2.2. As an aside, it should also be noted that the federal government went ahead with some of the shared-cost programs it proposed in the Conference on Reconstruction (e.g., the national health grants program and the Trans-Canada Highway program, both in 1948).

The tax rental payments did incorporate some element of equalization. Under the second option, for example, the amount of money returned to a province did *not* depend on how much was collected in that province. Rather it depended on the province's population. Indeed, if all provinces had been bound by this option, the result would not have been equalization but rather *equality* as far as the income taxes were concerned.

Thus the principle embodied in the Rowell-Sirois recommendations was now beginning to be echoed in actual legislation. Not fully perhaps, but certainly to a large degree. The minister of finance of the day, Mr. Ilsley, made this very clear.

TABLE 2.2
Federal transfers to the provinces and municipalities, 1947-48 to 1981-82 (\$ millions)

Fiscal year	Cash payments						
	Statutory subsidies	Equalization	Revenue guarantee	Reciprocal taxation	PUITTA ^a	Municipal grants	Hospital insurance
1947-48	17.1	—	—	—	2.9	—	—
1948-49	17.1	—	—	—	3.7	—	—
1949-50	25.7	—	—	—	1.4	.4	—
1950-51	25.2	—	—	—	4.6	1.4	—
1951-52	26.6	—	—	—	3.7	2.0	—
1952-53	25.8	—	—	—	4.4	2.5	—
1953-54	24.9	—	—	—	6.8	3.4	—
1954-55	24.3	—	—	—	7.3	3.4	—
1955-56	23.4	—	—	—	7.9	7.2	—
1956-57	22.8	—	—	—	6.6	9.7	—
1957-58	22.0	136.0	—	—	7.4	17.5	—
1958-59	35.2	168.4	—	—	8.7	21.9	54.7
1959-60	28.7	208.0	—	—	4.8	22.6	150.6
1960-61	28.7	214.0	—	—	4.2	24.6	188.9
1961-62	31.5	189.7	—	—	6.4	24.9	283.2
1962-63	31.5	211.6	—	—	10.0	29.4	335.8
1963-64	31.6	202.4	—	—	9.9	31.7	391.3
1964-65	31.6	261.6	—	—	9.7	36.2	433.0
1965-66	31.6	310.0	—	—	6.4	37.1	354.5
1966-67	31.6	370.5	—	—	6.0	38.4	383.7
1967-68	31.7	547.6	—	—	6.7	40.8	435.1
1968-69	31.7	566.1	—	—	20.8	44.3	550.3
1969-70	31.8	683.3	—	—	23.6	49.5	624.9
1970-71	31.8	899.2	—	—	23.9	52.2	688.1
1971-72	33.8	1,049.6	—	—	24.3	55.4	823.5
1972-73	33.7	1,176.8	—	—	80.0	61.8	1,019.5
1973-74	33.8	1,500.1	42.6	—	25.9	62.7	1,073.2
1974-75	33.8	1,795.0	475.2	—	26.7	68.2	1,360.3
1975-76	33.8	1,965.5	460.5	—	31.8	76.0	1,754.7
1976-77	33.8	2,169.3	943.1	—	38.5	88.5	2,007.2
1977-78	34.0	2,521.2	600.4	46.7	45.9	117.0	1,754.0
1978-79	34.0	2,632.4	121.6	100.4	81.8	130.8	2,252.7
1979-80	34.1	3,309.6	72.1	105.3	66.3	127.6	2,385.4
1980-81	34.1	3,313.7	—	107.3	64.3	153.7	2,582.1
1981-82	35.6	3,627.2	—	131.9	78.9	165.7	2,861.0

^a Public Utilities Income Tax Transfer Arrangements.

TABLE 2.2 (continued)

Fiscal year	Cash payments							
	Medicare	Extended health care	Voca- tional training	Univer- sity grants	Post- secondary education	Welfare, including CAP	Other cash payments	Total cash payments
1947-48	—	—	—	—	—	59.1	11.3	90.4
1948-49	—	—	—	—	—	66.8	22.0	109.6
1949-50	—	—	4.7	—	—	90.8	20.2	143.2
1950-51	—	—	4.1	—	—	103.6	41.8	180.7
1951-52	—	—	4.2	7.0	—	84.5	40.9	168.9
1952-53	—	—	4.9	5.1	—	22.2	43.9	108.7
1953-54	—	—	4.4	5.2	—	23.2	47.6	115.5
1954-55	—	—	4.4	5.4	—	24.1	54.5	123.5
1955-56	—	—	4.3	5.5	—	29.5	55.3	133.1
1956-57	—	—	4.7	16.0	—	38.4	68.0	166.2
1957-58	—	—	4.8	16.6	—	48.1	95.4	347.8
1958-59	—	—	8.1	25.5	—	74.1	117.2	518.8
1959-60	—	—	8.4	26.1	—	90.9	130.6	670.7
1960-61	—	—	8.7	19.0	—	102.8	137.4	728.3
1961-62	—	—	35.9	19.4	—	143.5	147.0	881.5
1962-63	—	—	207.5	26.3	—	159.5	139.8	1,151.4
1963-64	—	—	136.5	26.8	—	172.2	160.7	1,163.1
1964-65	—	—	97.2	27.3	—	182.4	229.3	1,308.3
1965-66	—	—	158.9	27.7	—	153.4	271.5	1,351.1
1966-67	—	—	232.3	70.9	—	189.7	317.4	1,640.5
1967-68	—	—	193.1	—	108.0	342.6	283.2	1,988.8
1968-69	33.0	—	—	—	276.6	382.8	324.1	2,229.7
1969-70	181.0	—	—	—	301.4	395.6	293.2	2,584.3
1970-71	400.5	—	—	—	388.3	518.7	458.9	3,461.6
1971-72	575.5	—	—	—	450.5	624.3	544.5	4,181.4
1972-73	629.2	—	—	—	481.1	677.6	275.5	4,435.2
1973-74	676.2	—	—	—	485.1	717.6	454.5	5,071.7
1974-75	760.8	—	—	—	503.6	976.3	488.3	6,488.2
1975-76	793.8	—	—	—	535.0	1,279.2	461.7	7,383.0
1976-77	1,001.0	—	—	—	648.7	1,490.0	592.4	9,012.5
1977-78	596.4	464.5	—	—	1,095.5	1,396.2	706.4	9,378.2
1978-79	715.4	520.3	—	—	1,365.4	1,523.4	757.1	10,235.3
1979-80	814.7	576.8	—	—	1,489.5	1,646.2	850.5	11,478.1
1980-81	886.6	639.4	—	—	1,621.0	1,893.8	705.2	12,001.2
1981-82	985.0	709.1	—	—	1,820.2	1,984.4	1,007.8	13,406.8

TABLE 2.2 (continued)

Fiscal year	Tax transfers				Total cash + tax transfers	Tax rental payments
	Contracting out	Post-secondary education	Established programs financing	Total tax transfers		
1947-48	—	—	—	—	90.4	112.5
1948-49	—	—	—	—	109.6	84.4
1949-50	—	—	—	—	143.2	76.9
1950-51	—	—	—	—	180.7	94.1
1951-52	—	—	—	—	168.9	96.9
1952-53	—	—	—	—	108.7	308.6
1953-54	—	—	—	—	115.5	309.2
1954-55	—	—	—	—	123.5	327.4
1955-56	—	—	—	—	133.1	319.6
1956-57	—	—	—	—	166.2	365.9
1957-58	—	—	—	—	347.8	213.9
1958-59	—	—	—	—	513.8	249.0
1959-60	—	—	—	—	670.7	279.7
1960-61	7.7	—	—	7.7	736.0	288.7
1961-62	7.9	—	—	7.9	889.4	312.6
1962-63	10.7	—	—	10.7	1,162.1	25.7
1963-64	10.9	—	—	10.9	1,174.0	10.5
1964-65	11.1	—	—	11.1	1,319.4	40.9
1965-66	224.0	—	—	224.0	1,575.1	43.7
1966-67	294.9	—	—	294.9	1,935.4	54.0
1967-68	333.6	227.6	—	561.2	2,550.0	55.4
1968-69	336.9	247.0	—	583.9	2,813.6	59.7
1969-70	400.4	307.0	—	707.4	3,291.7	59.9
1970-71	473.3	341.3	—	814.6	4,276.2	63.5
1971-72	531.7	398.5	—	930.2	5,111.6	65.9
1972-73	442.3	468.9	—	911.2	5,346.4	12.4
1973-74	543.4	581.1	—	1,124.5	6,196.2	.1
1974-75	742.5	708.2	—	1,450.7	7,938.9	3.7
1975-76	913.5	855.4	—	1,768.9	9,151.9	−1.1
1976-77	1,067.3	904.1	—	1,971.4	10,983.9	−4.9
1977-78	664.4	—	2,698.1	3,362.5	12,740.7	—
1978-79	729.9	—	2,909.6	3,639.5	13,874.8	—
1979-80	829.9	—	3,280.0	4,109.9	15,588.0	—
1980-81	905.8	—	3,674.5	4,580.3	16,581.5	—
1981-82	1,012.4	—	4,072.7	5,085.1	18,491.9	—

SOURCE: MacEachen (1981, 31).

It has been said that the proposed payments by the Dominion to the provinces are not based on the principle of fiscal need....Now, what the Dominion's proposal does is to provide a method whereby the three maritime provinces and the three prairie provinces will be enabled to derive from these sources the same per capita revenue as Ontario and Quebec. By selling certain rights to the Dominion for the term of the agreement, they are put in a position of sharing with the two central provinces equally on a per capita basis the productivity of the three great fields of direct progressive taxation—corporation taxes, taxes on personal income and succession duties. *Surely this is going very far to meet the test of fiscal need.* (Emphasis added)⁶

Indeed, in one sense the federal proposal went beyond Rowell-Sirois. The payments were indexed for population and GNP growth on an annual basis, unlike the proposed National Adjustment Grants. In any event, the seeds of equalization were being firmly planted.

The tax rental agreements: 1952-57

Bargaining over the tax rental agreements in anticipation of their renewal in 1952 was simplified by Canada's involvement in the Korean War and the knowledge that the resources available for federal transfers to the provinces were limited. At the same time, the federal government desired to bring the two central provinces back into the tax rental fold. The alternatives offered to the provinces included the first two options set out in the 1947 agreements, updated to apply to data for 1948. In addition, there was a third option, under which the tax rental payment would equal the sum of:

- the yield of the personal income tax at 5 per cent of 1948 federal rates,
- the yield of 8.5 per cent of corporate profits earned in the province in 1948,
- the average revenues received by the province from succession duties during the two most recent collection years, and
- the 1948 statutory subsidies.

Once again, the annual payments under any option were to be escalated for population and GNP growth. Ontario accepted the new

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option and became a signatory to the tax rental agreement. Quebec not only refused to sign but in 1954 introduced its own personal income tax, which equalled 15 per cent of the federal rate or 10 percentage points more than the third option would have allowed. As Bastien points out, this meant that Quebec taxpayers had to pay a total personal income tax that was 10 percentage points higher than that in any other province (1981, 16). Not surprisingly, this development worried Ottawa. In 1955 it increased the federal tax credit under the Income Tax Act from 5 per cent to 10 per cent, so that any province could collect its own income tax at a rate of up to 10 per cent of the federal rate without its taxpayers' having to bear a tax burden greater than that of taxpayers in other provinces (*ibid.*, 17). This provided tax relief for Quebecers, but they were not swayed from their desire to have their own personal income tax, which they have to this day. Moreover, this was just the first of many concessions granted to Quebec (and offered to other provinces as well) in the federal-provincial financial area.⁷

At this juncture, it is appropriate to recognize the existence of a very persuasive Quebec document, the 1954 *Report of the Royal Commission of Inquiry on Constitutional Matters*, better known as the 'Tremblay Report'. Commissioned in 1953, the immediate objective of the inquiry was

to shore up the claim of the Quebec provincial government to provincial primacy in the field of direct taxation. Since this claim would not be supported in law it was necessary to turn to other arguments, namely, the historical and the sociological. (Kwavnick 1973, viii)

Basically the report presents the case for provincial autonomy, and, as Bastien points out, it has had a lasting impact on Quebec's view of itself within the federation: 'there is...a spiritual affinity between the Tremblay Report and the constitutional positions taken by the major Quebec political parties, whether federalist or not' (Bastien 1981, 24). Among the points made by the Tremblay Report is the distinction it draws between 'financial autonomy' and 'fiscal autonomy' (Kwavnick 1973, 140). The former could be assured by federal grants and/or subsidies, but potentially at the cost of the latter. Fiscal autonomy, in the view of the Tremblay Report, means the ability of a province to

raise its own revenue, independently of the federal level, and to gear the fiscal side in a co-ordinated manner toward the overall economic, social, and cultural development of the province. The Tremblay Report may or may not have influenced Quebec's initial decision to establish its own personal income tax system. But it has surely encouraged the province to maintain that system and to force Ottawa's hand on a myriad of issues, financial and otherwise, involving federal-provincial relations.

A final comment on the 1952 arrangements: the fact that Ontario was offered a given share of the tax yield *generated within Ontario* was an important departure from Rowell-Sirois and from the previous five-year agreements as well. The alternative—the return of a given share of income taxes to the provinces on an equal per capita basis—would have involved a greater degree of equalization. It is likely that Ontario's choice of the former option under the 1952 tax rental arrangements forced the federal government to undertake the introduction of a formal equalization system, since an extension of the Ontario option to other provinces would have been the antithesis of equalization.

1957-62 FISCAL ARRANGEMENTS: THE INAUGURATION OF EQUALIZATION

The 1957 tax arrangements marked a watershed in federal-provincial financial relations. In the first place, the federal government recognized in the agreements the right of the provinces to the revenues from income taxation. Furthermore, the new arrangements incorporated a formal equalization program. I shall deal with these features in turn.

The tax sharing agreements

Under the new arrangements the provinces could either continue to 'rent' the three taxes (personal and corporate income taxes and succession duties) to Ottawa or levy the taxes themselves. The rental payment would now consist of specified *shares* of taxes, namely

- 10 per cent of the personal income taxes collected in the province,
- 9 per cent of the corporate profits taxes, and

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— 50 per cent of the federal succession duties (estate taxes), based on a three-year average.

If a province opted instead to levy its own taxes on these sources, the federal government would provide an *abatement* from federal taxes equal to the above percentages. Thus taxpayers in a province that chose to levy its own taxes at these rates would be in the same financial position as they would have been if the province had signed the rental agreement. All provinces except Quebec signed rental agreements for personal income taxation. Quebec also retained its own corporation taxes and succession duties. Ontario, which was a full signatory to the 1952 arrangements, refused to sign the 1957 agreements for corporation taxes and reinstated its own corporate tax.

Equalization

This form of rental payment or tax sharing clearly provided very different amounts of money per capita to the various provinces. Ten per cent of the personal income tax collected in the province meant more dollars per capita in Ontario than in Prince Edward Island. (Under the 1952 arrangements, by contrast, the rental payment consisted in large measure of per capita payments.) In order to rectify this discrepancy, Ottawa incorporated an equalization scheme into the arrangements. And not just any equalization scheme, but one that was *fully integrated* with the tax agreements. Specifically, the federal government agreed to pay to each province an amount that would bring its level of per capita yield from the three standard taxes up to the average yield in the two wealthiest provinces (Ontario and British Columbia). Moreover, a province was eligible for this unconditional equalization payment even if it did not choose to participate in the rental agreements. In effect, this meant that Quebec was eligible to receive equalization.

It should be noted that equalizing to the average level in the top two provinces implies that *one* of the top two will also receive equalization, since one of them will be below the average. Thus British Columbia received equalization payments under the 1957-62 equalization arrangements. Table 2.3 presents equalization entitlements by province by year, from the introduction of the formal scheme in fiscal year 1957-58 through 1981-82. Of some current interest is the fact

TABLE 2.3

Equalization entitlements by province, 1957-58 to 1981-82 (\$ millions)

Fiscal year	NFLD	PEI	NS	NB	QUE	ONT	MAN	SASK	ALTA	BC	TOTAL
1957-58	11.8	3.1	17.2	8.6	46.4	-	14.2	20.3	12.0	5.5	139.1
1958-59	20.1	5.6	26.3	22.6	63.3	-	13.5	20.4	13.4	6.7	191.9
1959-60	22.1	6.0	27.9	24.6	78.1	-	14.8	23.5	16.4	5.9	219.3
1960-61	20.3	5.6	25.9	24.0	69.9	-	13.3	21.9	15.4	6.0	202.3
1961-62	20.9	5.4	26.3	24.1	72.7	-	13.4	23.3	14.3	5.6	206.0
1962-63	24.0	6.9	29.1	25.5	68.8	-	13.7	22.9	12.3	-	203.2
1963-64	23.8	7.2	31.3	27.0	65.3	-	12.9	21.9	7.1	-	196.5
1964-65	27.1	8.1	37.7	33.0	96.1	-	18.7	22.0	1.2	-	243.9
1965-66	34.9	9.5	43.8	39.9	133.1	-	27.2	29.2	-	-	317.6
1966-67	39.2	10.5	47.9	44.2	151.3	-	30.5	31.4	-	-	355.0
1967-68	65.7	14.2	75.1	63.6	268.7	-	39.9	25.1	-	-	552.3
1968-69	73.2	16.2	84.0	71.8	386.6	-	49.3	26.4	-	-	707.5
1969-70	95.7	19.5	96.8	87.9	430.7	-	52.6	66.1	-	-	849.3
1970-71	97.3	19.9	99.5	93.1	420.1	-	54.7	99.0	-	-	883.6
1971-72	105.2	20.0	107.6	93.0	453.3	-	71.9	88.8	-	-	939.8
1972-73	113.7	25.2	123.9	103.2	534.3	-	68.1	102.0	-	-	1,070.4
1973-74	156.0	33.3	186.0	146.3	737.1	-	112.6	116.1	-	-	1,487.4
1974-75	174.7	42.5	232.0	168.5	918.4	-	124.5	50.6	-	-	1,711.2
1975-76	189.1	47.7	252.0	187.4	1,049.4	-	150.8	-	-	-	1,876.4
1976-77	229.2	54.4	298.1	232.4	1,062.9	-	153.3	10.4	-	-	2,040.7
1977-78	278.1	63.0	342.1	273.3	1,322.0	-	236.5	58.2	-	-	2,573.2
1978-79	321.2	71.6	375.4	331.3	1,482.8	-	291.7	32.7	-	-	2,906.7
1979-80 ^a	347.9	80.9	422.7	312.5	1,682.8	-	348.6	76.0	-	-	3,271.4
1980-81 ^a	376.4	88.0	449.1	378.7	1,720.8	-	342.6	40.2	-	-	3,395.8
1981-82 ^a	410.9	94.4	480.0	411.7	1,779.7	-	355.1	55.2	-	-	3,587.0

^a Estimated payments for these years.

SOURCE: MacEachen (1981, 63)

that Alberta was a 'have-not' province for the duration of this five-year agreement and even for a few years thereafter.

Since the 1957 arrangement represents the inauguration of the equalization program, it is appropriate to reflect on its origins. One of the themes of this historical overview is that the Rowell-Sirois Report had and still has an important influence on the federal-provincial interface. For example, the fact that equalization payments are transferred *unconditionally* to the recipient provinces probably owes a great deal to the Rowell-Sirois Commission's emphasis on provincial autonomy. But a more interesting point is raised by this question: was the 1957 equalization system a natural outgrowth of the Commission's arguments for National Adjustment Grants? I do not think so.

In my view, what happened was the following. Quebec had its own personal income tax. The thrust of the 1957 arrangements was to allow the other provinces access to 10 per cent of the personal income taxes collected within their boundaries. In part this arrangement was motivated by a desire to limit the spread of separate provincial personal income tax systems. However, the transfer of monies to the provinces under this scheme followed what Scott (1964) refers to as the 'principle of derivation' (see Chapter 3). The provinces were to get back a given percentage of the taxes that *derived*, as it were, from within their boundaries. Compared with the previous agreements, which allowed a more equal transfer to the provinces (on the basis of population, for example), these new arrangements were the antithesis of equalization. Hence, some additional program had to be mounted in order to compensate for the move away from population-related transfers. Moreover, since the tax revenues accruing to the richest province (Ontario) could be spent as the province wished, the decision to make the equalization payments unconditional followed logically.

If the politics of federal-provincial relations had been different—that is, if the provinces had been willing to accept their income tax transfers in terms of, say, population shares—then probably the equalization program would not have been introduced. Rowell-Sirois may have planted the notion of an equalization system in the minds of Canadians, but it is likely that the form of the program and the timing of its introduction owe much more to the nature of the evolution of the fiscal arrangement agreements than to the National Adjustment Grants proposal as such.

Stabilization

A third part of the 1957 fiscal arrangements package was the so-called 'stabilization' component. In effect, this was a guarantee by the federal government that the annual payment under the arrangements to any province would not fall below 95 per cent of the average payment for the previous two years.

Adjustments to the arrangements

The election of John Diefenbaker's Progressive Conservative government in 1957 led to several changes in the 1957 arrangements, criticism of which had been an integral part of Diefenbaker's election campaign. What follows is a brief account of these modifications, enacted over the period 1958-61.⁸

—For the 1958 tax year and thereafter, the provincial share of personal income tax was raised from 10 to 13 per cent.

—Atlantic Provinces Adjustment Grants were enacted in the amount of \$25 million (\$2.5 million to Prince Edward Island and \$7.5 million each to the other three Atlantic Provinces).

—Assistance under the Newfoundland Additional Grants Act, which provided additional assistance of \$6.6 million in 1957-58, was enriched to \$8 million by 1961-62.⁹

—In 1960 the corporate tax abatement was increased from 9 per cent to 10 per cent for provinces not accepting federal per capita university grants. Quebec was the only province to opt for this provision.

The Atlantic Provinces Adjustment Grants were presumably modelled after the Rowell-Sirois concept of National Adjustment Grants. The expressed rationale was the generally low fiscal capacity of the Atlantic region. However, the fact that the grants were limited to the Atlantic Provinces and expressed in flat lump-sum payments made them appear rather arbitrary.¹⁰ Arbitrary or not, the grants were extremely significant to the recipient provinces. They represented a 25 per cent increase in net revenues for Prince Edward Island over 1957-58, while for Newfoundland, Nova Scotia, and New Brunswick they generated increases, respectively, of 18 per cent, 12 per cent, and 13 per cent (Moore, Perry, and Beach 1966, 61).

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Hospital insurance

One final program relevant to the broader concept of equalization deserves attention. In June of 1958 the federal government embarked on a conditional grant scheme that provided, overall, 50 per cent of the financing of the provincial hospital insurance programs. Each province received 25 per cent of the national average per capita cost plus 25 per cent of its own per capita cost. Thus the per capita amounts received by the various provinces differed. Provinces spending less than the per capita national average on hospital insurance received *more than 50 per cent* of their total costs and vice versa. This feature of the hospital grants 'was the first important departure from the federal stand that the question of fiscal need should be taken care of in the unconditional grants only' (ibid.).

THE 1962-67 FISCAL ARRANGEMENTS

The tax collection agreements

The process by which the provinces abandoned the direct taxation field in 1941 in return for 'rental payments' came full circle in 1962. Direct taxation was returned to the provinces under arrangements typically referred to as the *tax collection agreements*. The provinces were now allowed to levy their own income taxes *and* have them collected free of charge by the federal government. There were some conditions, however. The provinces had to accept the federal definitions of personal and corporate income. Moreover, they had to accept the federal structure for the 'progressivity' of the tax system. What the provinces were free to do was to levy their own tax rates, though each province was limited to a *single* rate that would be applied across the board as a percentage of the federal tax. While this provision still applies today, it has become less restrictive, since the provinces are allowed to mount various tax credits and surcharges, which, for a fee, Ottawa will administer for them.¹¹

For its part, the federal government agreed to abate 16 per cent of its basic personal income tax and 9 per cent of the corporate tax to the provinces. The personal income tax abatement was increased several times during the five-year term of the arrangements until it reached 24 percentage points in 1966. The tax abatement process works as follows. The 24 per cent tax abatement meant a 24 per cent reduction

in the federal government's taxes, making room for the provinces to tax this share. Since the provincial rate was to apply to the federal tax base and since the federal tax base was now reduced, the provinces had to set their rates at 31.5 per cent if they wished to take up the entire tax room vacated by Ottawa.¹² If all of the provinces had maintained this tax rate, the total income tax paid by Canadians would have been the same as the total tax paid in the absence of the abatement and any provincial income tax. However, provinces were free to enact rates higher than 31.5 per cent, and several of them did. Thus their citizens now paid higher total income taxes than citizens in other provinces.

Respecting the third shared tax, succession duties, Ottawa agreed to return 50 per cent of the proceeds to the provinces if they refrained from imposing their own succession duties. Provinces that chose to levy their own succession duties were allowed a 50 per cent tax credit for federal taxes. Both of these figures increased to 75 per cent in 1964.

All of the provinces except Quebec joined the tax collection agreements for personal income taxes. Ontario and Quebec maintained their own corporate taxes, and several provinces collected their own succession duties.

Before I discuss the equalization provisions embodied in the 1962-67 arrangements, I should note that it was during this period that Ottawa formalized the procedures for 'opting out' of shared-cost or conditional grant programs. A province could 'opt out' of a federal shared-cost program, set up a similar program on its own, and receive funding in the form of additional tax abatements. Quebec contracted out of all the major programs (hospital insurance, health grants, Canada Assistance Plan, etc.) and received 23 additional abatement points for personal income taxes. No other province followed suit.

Equalization

Two important changes were made in the equalization formula in the original 1962 arrangements. The first related to resource revenues. Henceforth 50 per cent of the three-year average of provincial revenues and taxes from natural resources would be eligible for equalization. This measure was introduced largely in order to correct the anomaly of resource-rich Alberta's being a recipient of

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equalization flows. Not surprisingly, however, the official arguments did not acknowledge this motive directly: they were couched in terms of making equalization sensitive to the total fiscal capacities of the various provinces and not just to their capacities in terms of the three 'standard' taxes, as had been the case under the old arrangements (Moore, Perry, and Beach 1966, 71). The second new provision geared equalization to the *national* average level of revenues rather than to the average of revenues in the top two provinces. Obviously, this change reduced overall equalization and effectively offset the provisions that increased equalization, namely the broadening of the revenues eligible for equalization and an increase in the share of personal income taxes that entered the formula (from 13 per cent for the first year of the old arrangements to 16 per cent for the first year of the new arrangements). For the three standard taxes alone (neglecting resource rents), the move from the 'top-two' standard to the national average reduced equalization by roughly \$10 per capita for the recipient provinces. Partly as a result of this reduction the Atlantic Provinces Adjustment Grant was increased from \$25 million to \$35 million. Thus, for fiscal year 1962-63 the following taxes were equalized to the national average yields:

- personal income taxes at a 16 per cent tax rate,
- corporate income tax at a 9 per cent tax rate,
- succession duties at a 50 per cent tax rate, and
- 50 per cent of the three-year average of provincial natural resource revenues.

Table 2.4 illustrates the mechanics of this approach to equalization. Because the data utilized in the table were based on information available at the time the proposal was put forth, the resulting equalization flows will not correspond to the figures in Table 2.3. However, there is another reason why these data are not comparable: Table 2.4 does not take into account the 1962 formula's provision for 'guaranteed equalization' (ibid., 75). That is:

- no province entitled to equalization payments would receive less than it would have received under a continuation of the old equalization formula and tax rental agreements, and

TABLE 2.4

Illustrative effect for fiscal year 1961-62 of including provincial natural resource revenues with standard taxes of 16-9-50 with equalization to the national average, using 1960-61 as basis for standard taxes and 1956-57 to 1958-59 as basis for provincial natural resource revenues (All dollar figures except per capita in thousands)

	NFLD	PEI	NS	NB	QUE	ONT	MAN	SASK	ALTA	BC	TOTAL
Population 1960 D.B.S. (000)	459	103	723	600	5,106	6,089	899	910	1,283	1,606	17,778
<i>Yield of standard taxes</i>											
Individual income tax (16%)	2,479	420	5,561	3,990	62,482	131,477	13,171	9,386	20,609	32,365	281,940
Corporation income tax (9%)	2,718	663	5,137	4,380	75,645	126,909	11,729	8,053	18,731	27,184	281,149
Succession duty (50%)	<u>258</u>	<u>118</u>	<u>1,095</u>	<u>1,011</u>	<u>13,940</u>	<u>24,051</u>	<u>1,473</u>	<u>929</u>	<u>1,938</u>	<u>6,099</u>	<u>50,912</u>
Total yield of standard taxes	5,455	1,201	11,793	9,381	152,067	282,437	26,373	18,368	41,278	65,648	614,001
- per capita	11.88	11.66	16.31	15.64	29.78	46.38	29.34	20.18	32.17	40.88	34.54
<i>Provincial natural resource revenue</i>											
1956-57	819	17	1,641	4,289	36,106	29,332	5,012	23,803	140,626	46,180	287,825
1957-58	1,495	15	1,326	4,078	33,399	33,191	4,423	26,045	131,857	42,118	277,947
1958-59	<u>1,593</u>	<u>23</u>	<u>1,286</u>	<u>3,567</u>	<u>29,848</u>	<u>31,619</u>	<u>3,730</u>	<u>23,945</u>	<u>118,320</u>	<u>44,768</u>	<u>258,699</u>
Three-year total	3,907	55	4,253	11,934	99,353	94,142	13,165	73,793	390,803	133,066	824,471
Three-year average	1,302	18	1,418	3,978	33,118	31,381	4,388	24,598	130,268	44,355	274,824
50% of three-year average	651	9	709	1,989	16,559	15,691	2,194	12,299	65,134	22,178	137,413
- per capita	1.42	.09	.98	3.32	3.24	2.58	2.44	13.52	50.77	13.81	7.73
<i>Equalization</i>											
Difference in yield of standard taxes per capita from national average per capita (\$34.54)	-22.66	-22.88	-18.23	-18.90	-4.76	+11.84	-5.20	-14.36	-2.37	+6.34	
Difference in yield of 50% of three-year average of provincial natural resource revenue per capita from the national average per capita (\$7.73)	-6.31	-7.64	-6.75	-4.41	-4.49	-5.15	-5.29	+5.79	+43.04	+6.08	
Total difference in yield of standard taxes and provincial natural resource revenue per capita from the national average	-28.97	-30.52	-24.98	-23.31	-9.25	+6.69	-10.49	-8.57	+40.67	+12.42	
Equalization for provinces below national average (Equalization attributable to inclusion of provincial natural resource revenue)	13,297	3,144	18,061	13,986	47,231	-	9,431	7,799	-	-	112,949
	(2,896)	(787)	(4,880)	(2,646)	(22,926)	-	(4,756)	(-5,269)	-	-	(33,622)

NOTE: Guaranteed equalization not included above.

SOURCE: Moore, Perry, and Beach (1966, Table 16).

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—no province would receive less in total than it had received on average in the first two years or in the first year of the previous arrangements.

This is why, as Table 2.3 shows, Alberta received equalization until fiscal year 1964-65, even though it had become a 'have' province on the basis of its natural resource revenues.

The significance of the 1962 arrangements is that they were the first to extend equalization beyond the three shared taxes. In this respect, the 1962 scheme opened the door for the very extensive system that emerged in 1967. Note also that as far as the determination of the equalization entitlements was concerned, it did not matter at what rates the provinces *actually* taxed these three standard revenue sources. Entitlements were calculated by applying the *standard rates* (the abatements) to the revenue sources. This is very different from the present system, *under which entitlements are based on the revenues actually collected*. Under the 1962 scheme, a decision by Alberta not to tax personal income would not have reduced the level of equalization for other provinces. This is not the case under any of the more recent programs.

Modifications after 1962

One of the factors that affected equalization during the 1962-67 period was the increase in the level of the personal income tax abatement, initially set at 16 per cent. A series of negotiations brought the provincial percentage to 24 per cent by the end of the arrangements. This was not a change in the formula itself, but only an increase in the amount of personal income taxation that entered the formula.

There was, however, one major change in the formula. Living up to a 1963 election promise, the new Liberal government reinstated the top two provinces as the standard for equalization with respect to the three shared taxes. Ontario and British Columbia were the top two provinces. Resource revenues were no longer equalized. Rather, 50 per cent of the amount, if any, by which the three-year average of a given province's per capita resource revenue exceeded the national average would henceforth be *deducted* from this province's equalization arising from the shared taxes. With the change to equalizing to the two highest-yield provinces for the shared taxes,

equalization entitlements were generated for all provinces except Ontario. However, the resource deduction removed British Columbia and Alberta from the group of recipient provinces. Averaging to the two highest-yield provinces (combined with the rising proportion of income tax eligible for equalization) more than offset the removal of resource revenues, so that equalization payments rose rapidly for the last three years of the arrangements (see Table 2.3).

Like the previous five-year arrangements, the 1962-67 scheme included an overview provision relating to revenue stabilization. The federal government guaranteed that the yield from the standard taxes plus equalization over the duration of the agreements would not be permitted to fall below 95 per cent of the average yield from standard taxes, equalization, and stabilization payments over the preceding two years. This provision was valuable to the provinces principally because it helped them to establish better credit ratings. With overall revenue growing quickly over this period, the provision cost Ottawa nothing.

THE 1967-72 FISCAL ARRANGEMENTS: THE RNAS EQUALIZATION SYSTEM

The Fiscal Arrangements Act of 1967 was a critical milestone in the evolution of Canada's system of equalization payments. The formula for equalization incorporated in the act underlies our present equalization program. The many modifications that have been made to the 1967 program, at least those made up until 1982, are for the most part changes in degree and not in substance. It is appropriate, therefore, to deal with the rationale underlying the 1967 system in some detail. However, in keeping with the pattern developed thus far, I shall first discuss the tax changes associated with the 1967 agreement.

Tax arrangements

As noted above, for the last year of the 1962-67 agreements Ottawa transferred 24 points of the personal income tax system to the provinces and 9 tax points of the corporate tax.¹³ In addition, it proposed a series of 'contracting-out' or 'opting-out' provisions for provinces that wanted to assume full responsibility for programs covered under conditional or shared-cost provisions. Only Quebec

took advantage of this opting-out privilege, receiving an additional personal income tax abatement of 23 tax points. This meant, however, that there was a major cleavage between the arrangements applicable to Quebec and those applicable to the remaining nine provinces. (There were of course a host of other 'cleavages' in the arrangements—e.g., the Atlantic Provinces Adjustment Grants.) Partly as a result of this situation, Ottawa proposed that the provinces assume full responsibility for the shared-cost programs in health and welfare in return for 17 additional personal income tax abatement points. As Strick notes, 'the provinces rejected the federal proposals, fearing that with the soaring costs of education, health, and welfare, the abatement offered would produce less revenue in the future than the shared-cost arrangement' (1973, 111).

A compromise was struck that gave the provinces four additional personal income tax points and one corporate tax point in support of post-secondary education financing. However, this arrangement did not, over the longer term, bring the provinces any additional funding: post-secondary education expenditure continued to be shared between Ottawa and most of the provinces on a 50-50 basis.¹⁴ To be more precise, the federal government covered 50 per cent of operating expenditures and the balance was financed by the provinces, by endowments, and by students' tuition fees. Over time, the value of the tax transfer diminished relative to 50 per cent of education expenditures, and eventually all provinces received some support in the form of cash grants. While this tax-transfer provision appears to be of rather limited importance, it was viewed favourably by the provinces. That is, the tax-point transfer portion of post-secondary funding was viewed—*by the provinces*—as a provincial own-source revenue and *not* as a transfer from the federal level.

Clearly the additional tax-point transfer to the provinces did not represent the creation of new tax room for the provinces that many of them had requested. More generally, Ottawa now took the view that if the provinces wanted funds over and above what they already had from their own sources and what they received in the form of conditional and unconditional grants they could raise their own tax rates. In effect, the federal government appeared to be putting an end to the process by which it vacated successive portions of the income tax sources (particularly the personal income tax) in order to provide the provinces with a greater share of these taxes.

Equalization

The negotiations leading up to the 1967 fiscal arrangements began as early as 1964, with the creation of a federal-provincial Tax Structure Committee. As part of its terms of reference, the Tax Structure Committee was directed to investigate 'the relation of equalization grants to the fiscal requirements and fiscal capacities of the provinces, and the best equalization arrangements for the period 1967-72' (Moore, Perry, and Beach 1966, 90). The result was the development of the 'representative tax system' of equalization payments. Commenting on the new program, the then minister of finance, Mitchell Sharp, noted:

...it will be evident that, while we do not accept the view that the federal government has a responsibility to ensure that all provinces have adequate fiscal resources, without regard to the expenditures they undertake or the tax measures they impose, we do agree that *the federal government should enable each province to provide an adequate level of public services without having to resort to rates of taxation substantially higher than those of other provinces*. I said that we had sought a means to achieve this end as objectively and equitably as possible. We concluded that we could come as close as is presently possible to this objective *by adopting a formula which would take into account all provincial revenues, and which would bring the revenue yield in all provinces up to the national average yield*. This is achieved by applying average provincial tax rates to a comprehensive index of fiscal capacity in each province, and determining whether the resulting revenue yield is below the national average. If it is; the federal government makes up the difference. This approach would constitute a fundamental reform in our equalization arrangements. It would give us a formula which is more objective and more responsive to provincial needs, because it includes all revenues rather than an arbitrarily selected number of them, and because payments would grow automatically as provincial responsibilities and revenues grow. (Sharp 1966, 66)

I have added emphasis to the two parts of the minister's comments that are particularly enlightening. The first provides the rationale for the program. It is clear that the rationale has its underpinnings in the

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Rowell-Sirois philosophy with respect to the proposed National Adjustment Grants. It is also clear that this rationale has endured well, since with a few modifications it appears in the Constitution Act, 1982. The second emphasized section of the quotation stresses the comprehensiveness of this new approach to equalization. All *provincial* (but not *local*) revenues are to be included. Moreover, the logic of this representative tax system is that if enough provinces begin to tax another revenue source it too will be brought into the equalization program.

For the purposes of this study, I shall refer to this approach to equalization as the representative national-average standard (RNAS) approach. It is a 'representative' system in the sense that it takes account of the actual taxing practices of the provinces in terms of both the range of taxes entering the formula and the manner in which the tax bases are defined. Since the revenues for each revenue source are brought up to the national-average level—that is, the national average becomes the equalization 'standard'—the label RNAS seems wholly appropriate.

The details of the RNAS formula are not reproduced here. With a few modifications, outlined below, the system introduced in 1967 was the same as the system in operation in 1981-82. Thus, a full analysis of this approach to equalization is the subject of Part IV of the present study.

In the 1967 version of the program, only 16 tax sources entered the formula,¹⁵ compared with 30 sources taken into account in the 1981-82 version. While some new revenue categories have been added over the years (the most significant has been the school-purpose portion of local property taxes, added in 1973), the bulk of the increase in revenue categories has come about by splitting existing categories. For example, alcoholic beverages taxes accounted for one tax source in the 1967 formula. In 1981-82, they accounted for three: revenues for beer, wine, and spirits entered the formula separately. The second difference is that in 1967 all revenue categories were equalized in *full*—that is, total provincial revenues were equalized—while the 1977-82 system allowed, for example, only 50 per cent of nonrenewable resource revenues to enter the formula.

The overall impact of this formula on equalization flows is readily apparent from Table 2.3. Equalization payments jumped by \$200 million between fiscal years 1966-67 and 1967-68. And this was in

spite of the fact that the equalization standard had reverted from the yield in the top two provinces to a national average. Research indicates that if the richest two provinces had been utilized as the standard for equalization in 1968-69, overall equalization flows for that year would have been an astounding \$2.551 billion, compared with an actual level of \$707.5 million. Moreover, all of the provinces except Alberta would have been eligible for equalization payments.¹⁶ No surprise, then, that the national-average concept prevailed.

The shared-cost program for medicare: another equalization program?

In 1968, Ottawa offered to share the costs of provincial medicare programs provided that the provincial program abided by certain provisions, such as universality of coverage and portability of benefits. Overall, the program had a 50 per cent cost-sharing format. However, the manner in which Ottawa disbursed this 50 per cent was very much different from the manner in which it disbursed normal shared-cost or conditional grants. Specifically, all provinces were to submit their medicare expenses to the federal government. The federal share would equal the provincial total (this was the 50 per cent sharing concept). However, the federal government would pay out its share on an equal-per-capita basis to the provinces without regard to the actual per capita expenditures across the provinces. This was more akin to full equalization! Some provinces argued that this was still not an adequate arrangement, since the provinces varied in their abilities to come up with their own halves of the program. But the large increase in equalization flows over the same period reduced the force of this argument. It is interesting to note that Ottawa has been increasingly influenced by what amounts to a fiscal needs approach to shared-cost financing. Post-secondary education was essentially financed on a straightforward 50 per cent cost-sharing basis. The financing for hospital insurance involved some degree of equalization in that a province received, from Ottawa, 25 per cent of its own per capita costs and 25 per cent of the national average per capita costs. The medicare proposal, with its concept of identical per capita payments across provinces, went the full distance with respect to revenue equalization. The last approach was to dominate ten years later, when these programs were converted to a block-funding format. More information on this point, including some measure of the degree of

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equalization embodied in the plans, will be provided later in this chapter, in the context of the discussion of the 1977 Fiscal Arrangements Act.

THE 1972-77 ARRANGEMENTS

Tax reform and the revenue guarantee

Federal tax reform was the order of the day in 1972. After the report of the Royal Commission on Taxation (the Carter Commission), several federal position papers, innumerable private sector submissions, and seemingly endless discussion and debate, the way was paved for Ottawa to introduce income tax changes. The reform package incorporated several proposals that effectively reduced the federal personal income tax base on which the provincial shares of taxes were calculated. Since the provinces shared the proceeds of the income tax with Ottawa, it was possible that instead of following the federal lead in introducing reform they would use the reform to increase their *own* tax revenues by introducing offsetting provisions in their tax legislation. In other words, federal efforts directed toward tax reform for, and tax reductions to, Canadians could conceivably end up as transfers of taxes to the provinces. Therefore, the federal government offered the provinces a 'revenue guarantee'. In effect, this assured the provinces that if they maintained certain parallel features between their own and the federal tax structures, their equalized income tax receipts under the reformed tax regime would be no less than they would have been under the old regime.

This revenue guarantee was originally intended to last only three years, after which the provinces were expected to increase their own tax rates to make up any lost revenues. In addition, it was expected that the payments arising out of the program would be quite modest. Subsequent developments belied these expectations. The revenue guarantee was eventually extended to cover the entire period of the 1972-77 arrangements. Although it is not my intention to place too much emphasis on this novel feature of federal-provincial financial arrangements,¹⁷ it might be instructive to consider some examples of the reforms that were covered under the umbrella of the revenue guarantee. Reforms instituted in 1972 included: making Unemployment Insurance benefits taxable (which in itself increased provincial revenues), increased child-care exemptions, introduction of

a capital gains tax (again, this served to increase the tax base), an increase in allowable Registered Retirement Savings Plans, and, most important of all, an increase in the personal income tax exemption from \$1,000 to \$1,500 for the breadwinner and from \$2,000 to \$2,850 for the husband-wife combination. Tax measures introduced after 1972 but included under the guarantee included a \$1,000 interest-income exemption, a \$1,000 pension deduction, a \$50 per month education deduction, and an increase in exemptions for the elderly. All of the provinces introduced similar provisions in their own tax structures and thus became eligible for the revenue guarantee.

It is important to note that the most significant structural reform of the personal income tax—namely, automatic indexing to adjust for inflation, introduced in 1973—was decreed by Ottawa to be *ineligible* for inclusion under the provisions of the revenue guarantee. The cumulative cost to the provinces of this measure over the 1972-77 period alone was in the neighbourhood of several billion dollars. Quebec did not follow the federal lead here, and therefore, did not index its own personal income tax system to adjust for inflation.

Another feature of the 1972 arrangements was the termination of federal gift and estate taxes. Ontario, Quebec, and British Columbia already had their own succession duties and gift taxes, and several other provinces now followed suit.

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The logic of the RNAS system of equalization payments is such that one would expect new taxes to be added from time to time as the provinces venture into new tax areas. In 1972 three new *bases* were added to the formula—race track taxes, medicare premiums, and hospital premiums—bringing the total revenue sources covered under the program to 19. However, all of the revenues from all three of these bases had previously entered the formula under the 'miscellaneous revenue' category.

Much more significant were modifications that occurred subsequent to the 1972 revision. Two are of particular significance. Beginning in fiscal year 1973-74, that proportion of local property taxes designated for school purposes (roughly half) was brought into the formula. This was a step toward a position long advocated by some

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of the recipient provinces, namely the inclusion under the formula of municipal or local revenues. Property taxes clearly fell into this category. Yet because the measure made room for only the portion of the property tax that was earmarked for education, it did not necessarily represent a step in the direction of including taxes designated principally for local uses. Since New Brunswick and Quebec were moving toward a centralization of their school systems, one could argue that taxes financing education were essentially provincial rather than local revenues.

The second significant alteration over the 1972-77 period occurred as a result of the mushrooming of the world oil price in 1973 and 1974. In the fall of 1974 the federal government announced that energy royalties and revenues would *no longer be equalized in full*. Rather, for purposes of the formula, Ottawa would distinguish between 'basic revenues' (that is, revenues not attributable to the international energy disturbance) and 'additional revenues' (revenues that were so attributable). Basic revenues (defined in terms of actual revenues for fiscal year 1973-74, escalated by a volume index that would take account of any increases in production between 1973 and the current year) would be equalized in full. Additional revenues would equal actual revenues for the current year minus basic revenues. They would be equalized to the extent of one-third.

This was the first of a series of measures designed to insulate the equalization formula from the consequences of rapidly rising world and domestic energy prices (a detailed analysis of these measures appears in Chapter 5). It brought into sharp focus a problem implicit in the open-ended nature of the equalization formula and the indirect manner in which it attempts to meet its purpose. That purpose is to provide financing to poorer provinces in order to allow them to provide basic services at reasonable tax rates, a goal the formula attempts to accomplish by equalizing revenues. Thus a substantial revenue windfall for one or more provinces will raise the level of equalization payments to provinces eligible to receive them, *whether or not the cost of providing the basic services in those provinces has risen apace*. Even in the resource-rich provinces not all of the resource revenues end up being spent on basic services.

There is another important point to be made in this connection. Throughout this analysis care has been taken to describe programs other than the formal equalization program that have equalization

aspects. Canada's policy with respect to resource revenues falls into this category. By holding the domestic price of energy below world levels, the federal government is diverting potential revenues away from the Alberta treasury and giving them to individual Canadians in the form of lower prices for energy and energy-related goods. Although these rents go to people rather than to provincial governments, this does represent a sharing across Canada of energy rents, a large portion of which would otherwise end up in the coffers of the energy-producing provinces. This is a form of equalization and can be used to justify the less-than-full equalization of energy revenues in the formal equalization program.

The 1977 Fiscal Arrangements Act carried these energy-related modifications even further.

THE 1977 FISCAL ARRANGEMENTS ACT

Equalization

The 1977 equalization program was essentially a continuation of the 1967 RNAS approach to equalization. I say this not to downplay the various overrides that were at this time incorporated into the formula, but only to emphasize that many of the changes, such as reclassifying revenue sources and redefining tax bases, were fully consistent with the operations of a representative tax approach. Since many of these alterations relate to energy and will be treated in considerable detail in Chapter 5, I shall simply itemize the major changes ushered in by the 1977 legislation:

— The number of revenue sources increased to 29. It is instructive to note that *no new revenue sources entered the formula*. The increase in categories came principally from splitting up previous categories (for example, the alcohol category was split into its three components) and from gathering elements of various existing tax sources (especially from the miscellaneous category) and combining them into new tax sources. Thus the system became more sensitive to the actual taxing practices of the provinces; that is, it became more 'representative'.

— A number of tax bases were redefined. The most important of these was the old corporate income tax base, which became 'revenues from business income' and now included the profits from provincial government business enterprises.

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- The proportion of nonrenewable resource revenues eligible for equalization was set at 50 per cent. This replaced the previous system under which 100 per cent of basic resource energy revenues and one-third of 'additional' energy revenue entered the formula.
- The proportion of total equalization that could arise from natural resource sources (renewable as well as nonrenewable) was limited to a maximum of one-third. This provision has been called the 'natural resource override', but it is more frequently referred to as the resource ceiling or the resource cap.

The only significant changes in the formula during the five-year period of the arrangements occurred in 1981. The most important change has come to be known as the 'personal income override'. Ontario qualified for equalization entitlements for every year of the 1977-82 arrangements. Since this was deemed to be an unacceptable situation, Parliament enacted Bill C-24, under which no province is eligible to receive equalization if its personal income per capita exceeds the national average level in the current year and in the preceeding two years. In effect, this provision applies only to Ontario and indeed it was so designed. A second, less important provision of Bill C-24 phased one of the energy categories (sales of Crown leases) out of the formula. In part, the purpose of this provision was to ensure that the $33\frac{1}{3}$ per cent resource cap would not become binding. A final alteration in the program was the result of the National Energy Program, which included a provision returning to the provinces one-half of the revenues arising from the federal export tax on oil. These revenues entered the formula as a separate category for fiscal year 1981-82.

Far and away the most important feature of the 1977 Fiscal Arrangements Act was the conversion of the 'established programs' (medicare, hospital insurance, and post-secondary education) from a shared-cost conditional grant to a block-funding *unconditional* grant basis. Moreover, as will be argued below, a substantial element of 'equalization' was built into the new arrangements.

Block funding of the established programs

Prior to 1977, all three major programs included under the umbrella of the 'established programs' were 50 per cent shared-cost programs.

But the manner in which this federal share was paid to the provinces differed markedly across the programs. Post-secondary funding followed the typical shared-cost format: Ottawa paid 50 per cent of the provincial operating costs. Part of this funding came in the form of a tax transfer of four equalized personal tax points and one equalized corporate tax point, but these transfers had no real impact on money flows since they did not cover the 50 per cent funding and had to be topped up with cash transfers. For three provinces (Newfoundland, Prince Edward Island, and New Brunswick), the post-secondary funding took the form of a per capita grant (originally set at \$15, but increased over time with the average rate of growth of post-secondary expenditures). At the other end of the spectrum was the funding scheme for medicare. As noted above, Ottawa paid its 50 per cent of total program costs in terms of an equal-per-capita transfer to the provinces, independent of their own per capita expenditures. Hospital expenditure occupied the middle ground—each province received 25 per cent of its own per capita expenditures and 25 per cent of national average per capita expenditures.

Thus there already existed some tendency to treat provinces on an equal per capita footing under the pre-1977 programs. Elsewhere, I have calculated what I have termed the 'implicit equalization' resulting from these programs as they existed in fiscal year 1975-76 (Courchene 1979, 10). 'Implicit equalization' is the amount by which the federal transfers to the provinces exceed what the provinces themselves spend on the programs. Since Ottawa bears exactly 50 per cent on an overall basis, weighted by population these provincial measures of implicit equalization will sum to zero.¹⁸ Four provinces come out with negative implicit equalization (Ontario, British Columbia, Alberta, and Quebec), while the remaining six have positive implicit equalization—that is, the federal contribution represents more than 50 per cent of their expenses. And for a few of these provinces this equalization is fairly substantial: for 1975-76, Prince Edward Island got \$38.09 per capita more than it spent of its own money on these programs and New Brunswick got \$29.00 more.¹⁹

The 1977 fiscal arrangements went a further step toward providing equality per capita across provinces in the financing of the established programs. This is hardly surprising, since it was cited by Prime Minister Trudeau as one of the objectives of the reform:

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There should be greater equality in per capita terms among the provinces with regard to the amount of federal funds they receive under the programs.²⁰

The actual reform measures are rather detailed. Two items deserve mention. First, the transfers became *unconditional*. The provinces could spend the funds as they wished. However, the principles underlying the health program still had to be observed: comprehensiveness of coverage, accessibility to service uninhibited by excessive user charges, portability of benefits across Canada, and nonprofit administration by a public agency. Second, when all the dust had settled, the funding effectively amounted to an equal-per-capita transfer to all provinces at a level that equalled the average amount spent on the program by the two richest provinces. Actually, this equal-per-capita amount was increased by the equivalent of two equalized personal income tax points to account for the fact that the revenue guarantee (discussed in connection with the 1972-77 arrangements) was being terminated. One-half of this additional transfer took the form of an equalized one-point personal income tax transfer and the other half was a cash grant. This equal-per-capita amount was to escalate each year by the average rate of growth of per capita GNP over the three preceding years.²¹ Since all of the provinces were brought up to this new national average funding level (unless their tax revenues from the transferred tax points gave them more than this, a situation that applied only to Alberta), many of them received a handsome windfall. For example, if we take Ontario as the standard, Prince Edward Island benefited by an additional \$42 per capita, New Brunswick by \$30, and Saskatchewan by \$28 (Courchene 1979, 18). And these windfalls were permanent and were subject to the GNP escalation.

This block funding of the established programs reproduces two of the features of equalization—funding up to the level of the average of the highest two provinces and unconditional payments. Thus, it is critical when discussing the role of the formal equalization program and its evolution over time to take into account the various other aspects of the fiscal arrangements that incorporate significant features of equalization. As I have shown, this is clearly true for the recent past, and no doubt it will be true for the future as well.

Finally, it is important to recognize that there is a link between the financing of the established programs and the formal equalization system. As I said in note 21, the funding for the established programs consists in part of just over 13 personal income tax points and one corporate income tax point. These tax points enter the equalization program along with the balance of personal and corporate tax revenues. Hence the value of equalization for 1981-82 incorporated the equalization associated with these tax points for the financing of the established programs. In calculating how much the various provinces are owed for the established programs, the federal government takes the equalization associated with established program financing into account before making any further payments to reach the guaranteed equal-per-capita level. One could, if one wished, separate out these tax points from equalization and include them in the financing figure for the established programs. I have included them in equalization, following the standard practice. However, it is very important to recognize this interaction between the two programs.

THE 1982 FISCAL ARRANGEMENTS

My monograph dealing with the 1977 fiscal arrangements made the following observations about the negotiations leading up to this agreement.

...the entire renegotiation process with respect to the new fiscal arrangements essentially bypassed the Parliament of Canada, as well as the provincial legislatures. While it is true that the Fiscal Arrangements Act is an act of Parliament, the House of Commons was effectively presented with a *fait accompli*, hammered out between representatives of Ottawa and the ten provincial governments. The bulk of the Commons debate on the bill was directed toward sorting out the precise details of its various provisions. There was no debate in the traditional sense of the term. This raises the important issue of whether the institution of the federal-provincial conference is serving adequately the needs of the nation. Public opinion was not brought to bear on the new arrangements. This is in marked contrast to the information that has been made available through the media and the public discussion that has arisen relating to the

pending revision of the new Bank Act, for example. Yet in comparison with the renegotiation of the financial basis of the federation the significance of the Bank Act is modest in terms of the impact on the Canada of tomorrow.

Part of the problem is that the financial arrangements are so complex and hence so little understood outside the ministries of finance in Ottawa and in the provincial capitals. It is much easier to engage in debate over whether foreign banks should be allowed to operate in Canada than over the complexities of the equalization formula. Doing away with the institution of the federal-provincial conference is not the answer. In sorting out these types of issues it is not only natural but essential that representatives of Ottawa and the provinces be involved. The answer is to open up the consultation and negotiation process in such a way as to ensure that Canadians have access to far more information than has been the case in the past as well as to provide some well-defined avenues to enable Canadians to bring their individual or collective opinions and expertise to bear on the deliberations. (Courchene 1979, 48)

The negotiations leading up to the 1982 revisions were very different. There was ample room for input from organizations and from individuals from various walks of life. For the first time a Parliamentary committee (the Parliamentary Task Force on Federal-Provincial Fiscal Arrangements) was struck with the power to call witnesses and to prepare a report to Parliament prior to any federal action on the issue. The committee's document, *Fiscal Federalism in Canada*, was published in August of 1981. Early in 1982 the Economic Council of Canada published a major document entitled *Financing Confederation: Today and Tomorrow*. In academic circles the issue of equalization, particularly the issue of interaction between the equalization system and resource rents, generated a burgeoning literature.²² All in all, the process was much more 'open' than it had ever been in the past. Table 2.5 presents a chronology of events associated with the 1982 fiscal arrangements.

Yet it is probably fair to say that the 1982 negotiations were as heated as any in the past. Basically, the provinces felt that they were forced to bear some of Ottawa's cost-cutting moves, particularly with respect to the established programs. Moreover, many of them felt

The evolution of equalization payments

TABLE 2.5

A chronology of the 1981-82 fiscal arrangements discussions

-
- 28 October 1980
 - Federal budget announces Ottawa's intention to achieve 'significant savings' in social transfer payments to the provinces, starting in 1982.
 - 17 December 1980
 - At a federal-provincial meeting of finance ministers, provinces urge the federal government to put forward concrete proposals, and Mr. MacEachen responds by promising early discussions of a substantive nature.
 - 5 February 1981
 - The federal government appoints a Parliamentary Task Force on Federal-Provincial Fiscal Arrangements to examine transfer payments 'within the context of the (federal) government's expenditure plan as set out in the October 28, 1980 budget'.
 - 25 February 1981
 - Mr. MacEachen states that he is seeking \$1.5 billion from the provinces over the years 1982-83 and 1983-84.
 - 15 August 1981
 - The 22nd annual Premiers' Conference concludes with provinces criticizing the lack of concrete federal proposals and urging the commencement of negotiations.
 - 28 August 1981
 - Report of the Parliamentary Task Force. It rejects its restrictive mandate, recommending that funding levels be maintained.
 - 12 November 1981
 - Federal budget proposes elimination of revenue guarantee compensation for established programs financing and an Ontario standard for equalization.
 - 23 November 1981
 - Federal-provincial finance ministers meet to discuss budget proposals. Ottawa admits budget error resulting in significant new losses to provinces.
 - 14 December 1981
 - Second meeting of finance ministers. Modest federal concessions on equalization. Provincial consensus papers urge a one-year extension of equalization and established programs financing.
 - 18 December 1981
 - Major changes to the November budget tax proposals further increase net losses to provinces.
 - 15 January 1982
 - Release of new population estimates again causes major revision of provincial entitlements.
 - 22 January 1982
 - Finance ministers fail to make any progress. First hints of a five-province equalization standard.
 - 4 February 1982
 - Conclusion of First Ministers' Conference on Economy. Prime minister holds to proposed established programs financing cuts, but claims to have added \$1 billion over five years by introducing five-province standard. Provinces propose one-year extension with 12 per cent cap. No agreement is reached.
 - 19 March 1982
 - Fiscal arrangements legislation receives first reading in House of Commons. 1
 - April 1982
 - New arrangements become law.
-

SOURCE: Ontario (1982, Chart 7).

Equalization payments

that, despite all the room for input, Ottawa never really budged from its initial bargaining position. And since the Fiscal Arrangements Act is an act of the federal Parliament, in the final analysis Ottawa can always carry the day if it wishes.

The established programs

The major change in the funding of the established programs related to the elimination of the 1977 compensation payments for the so-called revenue guarantee. The reader may recall that the revenue guarantee was introduced in 1972 to help the provinces through the transition to the income tax reform measures announced in 1971. The guarantee expired in 1977, but the federal government agreed to provide further compensation at provincial request. This compensation took the form of a transfer to the provinces in the context of the 1977 fiscal arrangements of the equivalent of two additional personal income tax points—one in the form of a transfer of one personal income tax point and the other the form of a cash transfer. At the time, my interpretation of these additional two tax points was that they were to be a *permanent* part of the financing package for the established programs. Obviously the federal government took a different view.

The impact on provincial finances of the loss of compensation payments has been quite significant. In fiscal year 1982-83, the provinces received \$935 million less in federal funding than they would have received had the 1977-82 arrangements been extended. This cost is expected to rise to \$1.425 billion in 1986-87, which will bring the overall shortfall for the duration of the new fiscal arrangements to just under \$6 billion.²³

The other change in the established programs financing portion of the fiscal arrangements was the elimination of the so-called 'fiscal dividend'. As was noted in the discussion of the 1977 arrangements, one-half of the total transfer was in cash and the other half took the form of a transfer of tax points. The guaranteed minimum for a province was an amount equal to double the value of the cash transfer. If, however, the value of the tax transfer exceeded the value of the cash transfer, the provinces were allowed to keep this excess. This was the 'fiscal dividend' that has now been eliminated. It has been estimated that over the 1982-87 period this move will save Ottawa

about \$500 million—\$450 million at the expense of Alberta and the rest at the expense of British Columbia. However, this estimate is based on expectations of provincial revenues as of early 1982. The severity of the recent recession is such that Ottawa's expected savings (and these provinces' expected loss) will be much less.

The major structural changes in the fiscal arrangements package for 1982 took place in the area of equalization. My purpose here is principally to describe rather than to evaluate the new equalization program. In the last section of the study I shall analyse the new program in detail, both in isolation and in relation to the issues raised in other sections.

Equalization

The new formula

The 1982 equalization formula embodies a *new standard* for equalization, the so-called 'representative five-province standard' or RFPS. In the initial Ottawa proposal, contained in the 1981 federal budget, the approach to equalization was the 'Ontario Standard'. All of the provinces' revenues were to be brought up to the per capita levels that obtained in Ontario. Obviously, this approach would have solved the problem of Ontario's being a recipient province for equalization: by definition, an Ontario standard would preclude the province from receiving equalization payments. However, the provinces objected to having a single province serve as the standard for equalization, so Ottawa settled for the RFPS.

Five provinces make up the RFPS—Quebec, Ontario, Manitoba, Saskatchewan, and British Columbia. The program works as follows. For each revenue category, one applies the *national average tax rate* to the province's own per capita tax base. One then calculates the five-province standard by applying this national average tax rate to the average per capita base in the five selected provinces. A province is poor if its resulting per capita yield is less than the per capita yield of the RFPS, and it receives a positive equalization entitlement equal to the shortfall. A rich province, one whose per capita yield for a given tax source exceeds the average per capita yield of the RFPS provinces, receives a negative entitlement. These entitlements are then summed, as they were under the 1977 formula. If the aggregate is positive, this is the province's equalization payment. If it is negative,

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the equalization payment is set equal to zero—that is, as was the case under the old arrangements, no province contributes directly to the funding of the program. Detailed calculations of the RFPS formula for 1982-83 and a comparison of this formula with the rejected Ontario standard and with the old RNAS formula are presented in Part VI of this study.

In brief, a province is eligible for equalization equal to the amount by which its own per capita yield (derived by applying national average tax rates to its own tax base) falls short of the RFPS per capita yield (derived by applying the national average tax rate to the average tax base in the five provinces). This new scheme is still a version of the representative tax system. However, instead of bringing provinces' revenues up to the national average level, as the previous formula did, the new scheme brings them up to the representative five-province level.

Extended coverage

The new formula has a much broader revenue coverage than the old RNAS scheme. All energy revenues are once again equalized in full. Municipal property taxes enter the formula for the first time. Municipal receipts from the sale of goods and services are covered. There are some other tax base changes as well. For example, revenues from potash are now a separate category, taken out from the former mineral revenue category. Even more important, the energy revenue category breaks down energy resources by types—conventional old oil, conventional new oil, mined oil, heavy oil, etc. These features are dealt with in detail in Part VI.

In terms of coverage, then, the new equalization formula includes virtually all provincial *and* local revenues. However, it is important to note that there may be less here than meets the eye. In particular, despite the fact that 100 per cent of energy revenues now enter the formula (compared with 50 per cent under the old formula), the actual equalization flows resulting from the energy sources fall off dramatically. This is so because the five provinces in the standard are not particularly energy rich. More on this later.

Other changes

The 1982 formula contains an entirely new provision that guarantees to equalization-receiving provinces a minimum level of payments as of 1983-84. Under this 'floor' provision, the total equalization entitlement of a province whose capacity to raise revenue is 70 per cent or less of the national average will never be less than 95 per cent of its entitlement for the preceding year. The minimum guarantee percentage is less for provinces with higher capacity. Another new feature of the program is a transitional arrangement that guarantees a province entitled to equalization in 1981-82 a minimum payment level during a three-year transition period beginning in 1982-83. This provision will be particularly beneficial to Manitoba and Quebec, the two provinces whose equalization entitlements fall as a result of the new program.

Finally, the formula contains a ceiling provision under which the growth of total equalization payments will be constrained by the rate of growth of GNP, beginning in 1983-84. The original proposal was that the ceiling would apply in 1982-83. It was altered to accommodate representations from the provinces.

ENSHRINING EQUALIZATION IN THE CONSTITUTION

Quite appropriately, our review of the legislative history of Canada's equalization program ends with the enshrining of the principle of equalization in the Constitution Act, 1982. The precise wording of the constitutional provision appears in the introduction to this study. It also appears as the last entry in Table 2.6, which summarizes the evolution of the equalization program.

It is of considerable interest to note that the wording of this provision is considerably different from that of the original draft of the constitution. This is the earlier text:

Parliament and the Government of Canada are committed to taking such measures as are appropriate to ensure that provinces are able to provide the essential public services...without imposing an undue burden of provincial taxation.²⁴

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Some of the provinces were very concerned about this wording. For one thing, there is no mention at all of the word 'equalization'. Second, there is nothing to indicate that these payments would necessarily go to provinces: they might be made to individuals. The enshrined version directly addresses these provincial concerns. There are other differences, such as the substitution in the final draft of 'reasonably comparable levels of taxation' for 'undue burden of...taxation'. Whether the judicial interpretation of 'undue burden' would have been more onerous than the interpretation of 'reasonably comparable' I leave to legal minds.

CONCLUSION

This concludes the review of the evolution of equalization payments in the context of this historical development of federal-provincial fiscal arrangements. In lieu of a summary, Table 2.6 provides a capsule overview of the history of Canada's equalization program.

Unfortunately, because of the brevity of this historical overview, some of the flavour of the discussion and debate that accompanied the historical development of the program has been lost. For example, there has been little reference to the many and varied provincial counterproposals to the federal initiatives. Nor has anything been said about the frequent call by provinces, such as by Nova Scotia in the early years of the program, to fall back on Rowell-Sirois and the system of National Adjustment Grants. Also absent is the recommendation by former premier W.A.C. Bennett of British Columbia to convert equalization payments into a negative income tax, with transfers going to persons rather than to provinces.

Nonetheless, this historical survey should lend some perspective to the next set of negotiations and provide a backdrop against which we can compare and contrast the alternative possibilities for future equalization. Before we focus on these alternatives, it is necessary to spend some time on the theory, as distinct from the history, of equalization. This is the purpose of Part III of the study.

TABLE 2.6
A summary of major developments with respect to equalization

Date	Subject	Description of amendments or innovations	Comments
1867	BNA Act statutory subsidies	Payments to provinces in return for surrendering indirect taxes to Ottawa. The subsidies contained an element of equalization in that they were per capita grants up to a maximum population. They were revised on many occasions (e.g., Duncan Royal Commission, White Royal Commission) and were geared toward the notion of fiscal need. Still exist today, but are of no real financial significance now, whereas in 1867 they represented a substantial share of provincial revenues.	Important in that they allow the concept of equalization to be traced back to the BNA Act.
1940	National Adjustment Grants	Recommended in Rowell-Sirois Report. These grants were to be paid on the basis of fiscal need. Determined by evaluating provincial/local expenditure needs in relation to access to revenues.	Not implemented. However, the rationale for these grants—to enable provinces to provide national-average levels of basic services at not unduly high tax rates—underlies the present-day formulations of equalization.
1957	First formal equalization program. Part of 1957-62 fiscal arrangements	Federal government agreed to bring per capita yields from the three standard taxes up to the average yield in the two wealthiest provinces. The revenue sources and tax rates were as follows: personal income taxes (10 per cent), corporate income taxes (9 per cent), succession duties (50 per cent).	Equalization was restricted to the three 'shared' taxes. The tax rates applied in calculating provincial revenues for equalization purposes were those that applied in the tax-rental arrangements. Alberta fell into the category of a 'have-not' province. Indeed, only the richest province (Ontario, at this time) did not receive payments. This was a necessary result of equalizing to the wealthiest two provinces.
1958	Increased equalization for personal income tax	The provincial share of personal income taxes paid to the provinces increased from 10 to 13 per cent. This entered the equalization formula.	Equalization was tied in closely with the tax arrangements, as one might expect.
1958-61	Atlantic Provinces Adjustment Grants and Newfoundland Additional Grants Act	Additional unconditional grants to the Atlantic Provinces, rationalized on the basis of their low fiscal capacity.	The additional grants appear to have been modelled after the Rowell-Sirois adjustment grants.
1962	1962-67 fiscal arrangements agreement	Personal income tax share rose to 16 per cent, in accordance with the tax arrangements. Introduction of 50 per cent of three-year average of provincial revenues and taxes from natural resources. Equalization standard reduced to the national average level.	First initiative to expand equalization beyond shared taxes. As compensation for movement down to national average, the Atlantic Provinces Adjustment Grant was increased from \$25 million to \$35 million. Alberta and British Columbia become 'have' provinces as a result of the resource provision.
1962-67	Provinces acquired an increasing share of personal income tax	The share of personal income taxes allocated rose from 16 per cent at the outset of the arrangements to 24 per cent by 1967. This increasing proportion automatically entered the formula.	Consistent linking of the equalization program with the tax arrangements.
1964-65	Natural resource changes	In fiscal year 1964-65, the equalization standard once again became the two top provinces. Resources were pulled out of the formula, and provinces could receive equalization only to the extent that their per capita entitlements exceeded 50 per cent of the amount by which their per capita resource revenues (three-year average) exceeded the national average level.	Equalization payments increased because the impact of equalizing to the two top provinces was worth more than the pulling of resource revenues from the formula. Alberta and British Columbia had positive equalization entitlements, but these were reduced to zero by the resource deduction provision.

TABLE 2.6 (continued)

Date	Subject	Description of amendments or innovations	Comments
1967	Introduction of the representative tax system of equalization (RNAS)	Sixteen revenue categories, each with its own base, equalized to national average level. Revenues that were eligible for equalization were based on provincial total revenues. Entitlements were summed over all sixteen categories. This total, if positive, represented the province's equalization. Negative overall entitlements were set equal to zero (i.e., funding was a federal responsibility, no province paid money into the scheme).	Characteristics of this type of program are spelled out in Chapters 4 and 5. Program was open-ended, driven by the degree of disparity in the revenue sources and by total provincial revenues. Underlying rationale cited for program was drawn from Rowell-Sirois Report. Attempted to be representative of taxing practices of provinces. Did not include revenues designated for local purposes.
1972	Program extended	Addition of three new tax sources brought total to 19. Revenues from these three sources (race track revenues, medical premiums, hospital premiums) were previously equalized under miscellaneous revenues.	Part of the 'housekeeping' involved in keeping the system 'representative'.
1973-74	School-purpose taxes included	That proportion of property taxes levied for school purposes was incorporated in the program.	Potentially a major modification in that property taxes are viewed as a local rather than as a provincial tax.
1974-75	Energy revenue modification	Two sorts of energy revenues, 'basic' and 'additional'. Basic revenues refer to those derived in 1973-74. Additional revenues are those generated above this level and attributable to the rise in prices rather than to an increase in output. Basic revenues equalized in full. Additional revenues equalized to extent of one-third.	Abandonment of concept of 'full' equalization. Financial implications of not enacting this measure would have been a tripling of total payments and the inclusion of Ontario in the have-not category.
1977	Equalization component of Fiscal Arrangements Act	Program expanded to 29 sources as a result of reclassification of revenues. Major changes in definitions of some tax bases. Only 50 per cent of nonrenewable resources eligible to enter the formula. Natural resources override provision meant that no more than one-third of total equalization could arise from resource revenues.	Postponed rather than solved problems created by mushrooming energy revenues. The 50 per cent provision from 1977 onward was in fact a more generous treatment of energy resources than the 'basic' and 'additional' compromise devised in 1974. Federal government felt it was more consistent to treat <i>all</i> non-renewable resources in an identical fashion.
1981	Bill C-24	Two provisions: - withdrawal of sale of crown leases category from the program; - personal income override—no province eligible for equalization of its per capita personal income exceeded the national average level in the current and preceding two years.	The personal income override was made retroactive to fiscal year 1977-78, thereby confiscating over \$1 billion of equalization due to Ontario. While one may agree with the spirit of the action, the personal income override is an arbitrary measure and does not fit well into the conceptual basis of the program, which has to do with fiscal capacities and not with personal incomes. This provision may lend support to a 'macro' equalization program where the basis of fiscal deficiencies is calculated with respect to variables such as personal income.

TABLE 2.6 (continued)

Date	Subject	Description of amendments or innovations	Comments
1982	New tax source added	Under the National Energy Policy, Ottawa returns half of oil export tax to the exporting provinces. It enters the formula.	Question becomes: should it enter as a separate category or be lumped in somewhere with existing revenues from energy? See Part VI.
1982	1982-87 fiscal arrangements. New RFPS equalization program	Five provisions: - New formula brings provincial revenues per capita up to the average per capita level of five provinces (Ontario, Quebec, Manitoba, Saskatchewan, and British Columbia). Referred to as the representative five-province standard. - Coverage extended to include municipal revenues and 100 per cent of resource revenues. - Beginning in 1983-84, equalization payments constrained by the rate of GNP growth. - Provision guaranteeing a minimum level of payment for recipient provinces. - A transitional payment incorporating minimums for a three-year period.	Removed the personal income override, the resource cap, the differential treatment of energy and nonenergy resources, and extended the coverage to include all provincial and local revenues. Energy-related equalization will fall compared with the previous system because the five provinces comprising the RFPS are, on average, not energy rich. RFPS system replaces the original federal proposal for 1982, namely the 'Ontario standard'.
17 April 1982	Constitution Act, 1982	A provision ensuring equalization is enshrined in Canada's new constitution.	'Parliament and the government of Canada are committed to the principle of making equalization payments to ensure that provincial governments have sufficient revenues to provide reasonably comparable levels of public services at reasonably comparable levels of taxation.'

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NOTES

- 1 Many of the details in the text are adopted from this source.
- 2 Bastien (1981, 6). Note that this \$500 million is more than the sums for relief in Table 2.1. This is so because \$175 million consisted of loans, a large portion of which were later written off by the federal government.
- 3 Once again, the treatment that follows will be rather brief. For greater detail on the 1941-57 tax rental arrangements, and later arrangements as well, the reader is referred to Strick (1973), Moore, Perry, and Beach (1966), and Bastien (1981). I adopt ideas rather liberally from all three of these sources.
- 4 A comment on the arrangements by R.M. Burns, cited in Strick (1973, 101).
- 5 As a compromise to get these provinces to sign the agreement, Ottawa agreed to scale back its share of the personal and corporate taxes by 5 percentage points and to allow Quebec and Ontario to levy their own taxes for this amount, which Ottawa would then collect for them. However, even this did not induce them to sign. Ontario did impose a 5 per cent tax on personal income, but it had no administrative mechanism to collect the tax and Ottawa refused to collect it for Ontario. See Strick (1973, 102).
- 6 Quoted in Moore, Perry, and Beach (1966, 31). Ilsley made his remarks when it was fully expected that Quebec and Ontario would sign the agreement. Hence the reference to these provinces.
- 7 For an evaluation of the role played by Quebec's personal income tax in altering the fiscal financial structure of federalism, see Ontario Economic Council (1983, ch. 3).
- 8 Moore, Perry, and Beach (1966, 63). This source also provides details of the negotiations and conferences leading up to these modifications.
- 9 Since I will not discuss the later development of this program in what follows, it is appropriate to note here that it was extended in the 1962-67 agreement and has since continued, on a permanent basis, under the aegis of the Newfoundland Additional Financial Assistance Act. All of this legislation is related to Term 29 of the Act of Union between Canada and Newfoundland.
- 10 Graham (1960) presents a rather detailed analysis of these Special Atlantic Adjustment Grants, including a discussion of the assumptions utilized to prevent them from going to other provinces. It is precisely this sort of fascinating historical perspective that limitations of space unfortunately require me to ignore.
- 11 For more detail relating to the operations of the tax collection agreements, see Ontario Economic Council (1983, Part I).
- 12 The provincial tax rate designed to take up room vacated by Ottawa equals $24/76 \times 100$ or 31.5 per cent.
- 13 A tax point is defined as 1 per cent of basic federal tax.
- 14 There were exceptions for some provinces. Newfoundland, Prince Edward Island, and New Brunswick opted for \$15 per capita instead of the 50 per cent cost-sharing. This per capita grant would escalate each year in line with the overall growth in aggregate post-secondary expenditures. For the remaining provinces, the 50 per cent option dominated this per-capita-grant option. Since the per capita grant amounted to more than the provinces would have received under a 50-50 sharing, there was an element of 'equalization' involved in these special arrangements.
- 15 These were: individual income taxes, corporation income taxes, succession duties, general sales taxes, gasoline taxes, motor vehicle licenses, alcoholic beverage taxes, forestry taxation, oil royalties, natural gas royalties, sales of crown leases and reservations on oil and gas lands, other oil and gas revenues, metallic and nonmetallic mineral revenues, water power rentals, other provincial taxes, and

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miscellaneous provincial revenues. The definitions of the tax bases corresponding to these tax sources are presented in Part IV below.

- 16 Courchene and Beavis (1973, Table IV, 498). Note that Alberta is the top-yield province and British Columbia the second richest. Under a scheme of equalizing to the *average* of the top two, obviously only the top province will not qualify for equalization.
- 17 More detail is available in Courchene (1979, ch. 4).
- 18 This is not quite correct: the existence of the per capita options for three of the Atlantic Provinces for post-secondary education means that, overall, the federal share of post-secondary education is slightly more than 50 per cent.
- 19 These provinces' own per capita expenditures on the programs were \$158.60 and \$155.64 respectively. Overall, the federal share represented 56 per cent of the total cost of the programs for Prince Edward Island and 54 per cent for New Brunswick (Courchene, 1979, 10).
- 20 Statement by Prime Minister Pierre Trudeau to the First Ministers Conference on Fiscal Arrangements on 14 June 1976. Cited in MacEachen (1981, 79).
- 21 Some elaboration relating to the funding provisions is probably in order. The federal funding comprised two equal parts—a cash payment and a transfer of tax points. The tax-point transfer consisted of 13.5 equalized personal income tax points and one equalized corporate tax point. On a *net* basis this meant that an additional 9.143 personal tax points were transferred to the provinces; the provinces already had the remainder under the previous arrangements as partial funding for post-secondary education.

The process of transferring the tax points was quite straightforward. Ottawa reduced its tax rates by an average of 9.143 per cent. A province that wanted to take up the exact tax room vacated by Ottawa set its new provincial rate equal to old rate plus $9.143/(100-9.143) \times 100$. Ontario's provincial tax went from 30.5 per cent to 44.0 per cent in 1977. This left Ontario taxpayers in essentially the same position as they were in before the tax transfer. More of the taxpayers' money went to Queen's Park and less to Ottawa, but the total remained essentially constant.

The cash-payment half of the transfer was escalated by the three-year moving average of nominal GNP per capita. Ottawa also guaranteed that no province would receive less than double the amount of the cash grant. Since the value of the transferred tax points has in general not kept pace with the value of the escalated cash payments, all provinces except Alberta receive in total an amount equal to double the cash portion. That is, *the funding essentially amounts to an equal per capita payment to all provinces*. For more detail see Courchene (1979, ch. 2).
- 22 Some of the ideas emanating from this literature will be discussed in the next chapter. The particular equalization proposals embodied in the two above-cited reports will be dealt with in Chapter 10.
- 23 These figures are adopted from the *Ontario Budget, 1982*, Budget Paper B, Table 1.
- 24 Canada (1980). This resolution was tabled in the House of Commons on 6 October 1980.

Postscript

The march of economic events proceeds relentlessly. Several developments have occurred since the completion of this chapter that merit inclusion in any overview of the equalization system. I shall focus here on three new initiatives—the Canada Health Act, British Columbia's eligibility for fiscal stabilization payments, and the Canada-Nova Scotia Oil and Gas Agreement.

THE CANADA HEALTH ACT

The Canada Health Act passed the Parliament of Canada unanimously. However, several of the provinces were and remain adamantly opposed to many of its provisions. If one takes these provinces' worst fears into account, the scenario would probably go as follows. The Canada Health Act

- defines in part what ought to be covered under the provincial programs,
- effectively eliminates extra billing as a source of funding,
- calls into question (but as yet does not prohibit) some previously accepted means of funding, such as premiums,
- makes it more difficult for provinces to legislate fee schedules for doctors, and
- is open-ended and unilateral in the sense that its provisions can be altered by Parliament if and when it wishes.

Even if this list does not correspond exactly with how others interpret the provisions and regulations pursuant to the Canada Health Act, the two key implications of the Act are clear enough. First, the federal government is in the process of reconditionalizing the cash portion of

health care transfers. This step represents a continuation of the swing away from provincial autonomy with respect to the established programs, which reached its high point during the period 1977-82. At the time of writing, the federal government appears to be moving in the direction of placing additional restrictions on the cash portion of the grants for post-secondary education as well.

The second point is that the provisions of the Canada Health Act go well beyond the health-care area: they will have a substantial impact on the overall federal-provincial financial interface. Elsewhere, I may have gone too far in suggesting that the result of putting the provincial governments in this financial straightjacket has probably been that several provinces are once again looking at the financial flexibility that might be gained by establishing their own separate personal income tax systems (Courchene, forthcoming). However, the underlying concern is surely valid: federal-provincial fiscal relations have now become so complex that unilateral action in one area is likely to have repercussions elsewhere in the system.

FISCAL STABILIZATION PAYMENTS

On 30 March 1984, Finance Minister Marc Lalonde announced that the Government of British Columbia would receive \$174 million under the revenue stabilization program to compensate for a decline in provincial revenues in 1982-83. The minister noted that this is the first such payment to any province since the fiscal stabilization program began in 1967 (Department of Finance 1984).

Because this part of the Fiscal Arrangements Act had never been used, little was said about it in the foregoing historical survey. Now that British Columbia has qualified for payments, this feature requires more attention. The following excerpt from a recent publication of the Federal-Provincial Relations Office describes the program in detail:

Purpose

To protect each province from a sudden year to year loss in revenue as a result of a severe economic downturn in the national economy or in the province's own economy.

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Authority

Part II of the Federal-Provincial Fiscal Arrangements and Established Programs Financing Act, 1977, as amended by an Act to amend the Federal-Provincial Fiscal Arrangements and Established Programs Financing Act, 1977 and to provide for payments to certain provinces (S.C. 1980-81-82, C-94), and regulations thereunder.

Time Frame

This is a continuing program which began in 1967 and was renewed in 1972 and again in 1977 and 1982, in each case with certain modifications. The present program, which was devised following discussions with the provinces, began on March 31, 1982 and has no termination date. However, it will undoubtedly be subject to the quinquennial review which has become traditional for programs falling within the Federal-Provincial Fiscal Arrangements.

Financing and Operation

Stabilization payments are intended to be unconditional payments to provinces whose total revenues, measured on the basis of constant rates of taxation and constant tax structure, decline from one year to the next. The revenues which are stabilized are the same as those which are subject to equalization (except that local government revenues are excluded) plus equalization itself (except that portion of equalization which relates to local government revenues). There is however a threshold which a province must meet before it can qualify for stabilization payments in respect of natural resources. This threshold provides that payment may be made only if, and to the extent that, a year to year decline in natural resources exceeds 50 per cent. This provision has been added to prevent the possibility of making stabilization payments to resource-rich provinces whose revenues could fall from present or future high levels as a result of declining volumes of production or reductions in the prices of resources from peak levels which they achieve from time to time. It is felt that such declines are foreseeable and, therefore, ought not to be covered by the stabilization program. The only change made to the program in 1982 was the removal of the

fixed termination date. (Federal-Provincial Relations Office 1983, 101)

What occasioned the payment to British Columbia was, of course, the collapse of the province's revenues over 1982-83. Interestingly enough, this provision is unlikely to come into play for a 'have-not' province, since equalization payments are taken into account when assessing the need for stabilization payments. Thus, the fiscal stabilization program is a sort of equalization system for the rich provinces.

Although the provisions of the program did not come into play over the first fifteen years of their existence, this is not to say that they served no purpose. Quite the opposite. The provinces were anxious that the stabilization program continue, not so much because they thought that they might some day become beneficiaries but because it was of considerable value in maintaining their credit ratings. In effect, fiscal stabilization guaranteed the provinces' revenues from one year to the next. The fact that British Columbia has now qualified for payments will likely mean that fiscal stabilization will be looked at more closely in the 1987 renegotiations of the fiscal arrangements.

THE CANADA-NOVA SCOTIA OFFSHORE ENERGY PACT

On 31 May 1984 Energy Minister Jean Chrétien tabled legislation in Parliament to establish formally in law the major elements of the Canada-Nova Scotia Offshore Oil and Gas Agreement. Similar legislation was introduced simultaneously in the Nova Scotia legislature. Intriguingly enough, this development is by far the most important of the three discussed here in its implications for equalization and probably for overall federal-provincial relations as well.

The agreement is wide-ranging, but according to a *Communiqué* issued by Energy, Mines and Resources Canada the major elements of the legislation include:

- Establishment of a permanent Canada-Nova Scotia Offshore Oil and Gas Board for managing petroleum activity in the offshore Nova Scotia area.
- A mechanism to ensure the province receives all revenue from offshore activity (with the exception of federal corporate

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income tax) until its per capita fiscal capacity reaches 110 per cent of the national average fiscal capacity, adjusted upward to take account of the extent to which the province's unemployment rate exceeds the national average. These revenues include the Federal Petroleum and Gas Revenues Tax. Once it moves above this level, the province will begin to share the revenue.

— A provision to allow the Government of Nova Scotia to purchase up to 50 per cent of any Crown share in a natural gas field, and 25 per cent in an oil field.

— Establishment of a \$200 million development fund to assist the province in meeting the costs of providing an infrastructure for offshore oil and gas activity.

— A provision for equalization offset payments, which will protect the province for up to 10 years from the full effects of reductions in equalization payments as it gains offshore revenue. (Energy, Mines and Resources Canada 1984, 1-2)

The provisions relating to offshore revenue-sharing and to the equalization offset need greater elaboration. The *Communiqué* describes the revenue-sharing arrangements as follows:

The sharing of offshore revenue will be accomplished through the following provisions of the legislation.

1 Until the province's per capita fiscal capacity reaches 110 per cent of the national average—adjusted upward by two percentage points for every one percentage point that the province's unemployment rate exceeds the national average—it will receive all offshore revenue, except the federal corporate income tax. This revenue consists of:

- the Basic Royalty
- the Progressive Incremental Royalty
- revenues that are equivalent to a provincial-type corporate tax and retail sales tax in the offshore region
- bonus payments and licence fees
- as much of the federal Petroleum and Gas Revenue Tax (PGRT) as is necessary to reach the 110 per cent level, plus the unemployment adjustment.

2 All of the above revenue collected from the Bay of Fundy and from Sable Island and its footprint will always go to the provincial government no matter how high its fiscal capacity.

3 If the province's per capita fiscal capacity exceeds 110 per cent of the national average adjusted by the unemployment differential, the federal government would begin to share in the offshore revenues. The details of such sharing are set out in the Canada-Nova Scotia Agreement on Offshore Oil and Gas Resource Management and Revenue Sharing of March 2, 1982, and will be set out in regulations under the proposed legislation. (Ibid., 3-4)

This degree of sharing is such that 'Nova Scotia will receive *more* revenues than it would if this were a provincial resource on land' (Ibid., 3). To see that this is the case, one has only to observe that the Province of Saskatchewan does not receive all energy-related revenues (except federal corporate income taxes) until its fiscal capacity is 110 per cent of the national average.

The Canada-Nova Scotia pact will not interfere directly with the equalization formula that prevails when the provisions of the pact come into force. The resource revenues accruing to Nova Scotia will enter the existing formula in the same manner as revenues from any other revenue source. Under the RFPS formula, for example, 100 per cent of Nova Scotia's offshore revenues would enter the formula.

However, at this point the Minister of Energy, Mines and Resources will step into the process and make *equalization offset* payments to Nova Scotia so as to limit the impact of the equalization program on the province's revenues. Nova Scotia can choose either of two approaches to reimbursement:

—Under one formula, these payments would start immediately on the commencement of production from the first major offshore project. The province would receive offset payments equal to 90 per cent of the value of the reduction in its equalization payments from the time of commencement of production until the end of the first full fiscal year following. The rate of offset would be reduced by 10 per cent in each subsequent year, until the payments were phased out.

—Under the alternative formula, the province could postpone the commencement of offset payments for up to three full fiscal years after the commencement of production. Once started,

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the payments would be calculated as under the first formula. They would be subject to a ceiling to the effect that they could take the province to a per capita fiscal capacity equal to, but not greater than, 100 per cent of the average fiscal capacity of the 10 provinces.

—The province must choose between these two options prior to the commencement of production from the first major offshore project. (Ibid. 5)

Note that this legislation overrides *whatever* equalization program may be in place when offshore revenues begin to flow to Nova Scotia. The regular equalization formula, whatever it happens to be, will determine the equalization flows to the other provinces. In respect of Nova Scotia's offshore revenues, however, that province's equalization flows will be determined by an entirely separate formula. Under the first option above, the payments to Nova Scotia would be determined in the first year by putting into this separate formula only 10 per cent (rather than 100 per cent) of offshore revenues. In the second year, 20 per cent rather than 100 per cent of these revenues would enter the formula. And so on. The equalization reimbursement would equal the difference (in year one) between having 10 per cent and having 100 per cent of Nova Scotia's offshore revenues enter the formula—regardless of the percentage of energy revenues that entered the regular formula.

In terms of the RFPS formula, under which there is an automatic 100 per cent revenue offset (see Chapter 12), this provision would mean that in the first year Nova Scotia would be able to retain 90 per cent of its energy revenues rather than zero per cent. It might appear that this provision is really no different than the minimum-guarantee levels that are part of the RFPS. For example, for a province with at least 75 per cent of the national average fiscal capacity, the RFPS floor is such that equalization in the current year will be at least 85 per cent of last year's level. However, this floor provision applies to aggregate equalization flows to the province and not just to the offshore energy component. Under the Canada-Nova Scotia pact, equalization payments to Nova Scotia could actually increase from one year to the next if the equalization for the remaining thirty-odd sources went up by more than the negative impact of introducing 10 per cent of offshore revenues into the formula.

This agreement has far-reaching implications for both equalization and the fiscal arrangements generally. The conclusion to the study will discuss its likely impact on the 1987 revision of equalization. It is sufficient here to note that if these agreements spread (as they surely must) the final result would be the replacement of a universal, formula-based approach to equalization by an approach that is determined principally by bilateral pacts between Ottawa and the several provinces.

PART III
EQUALIZATION PAYMENTS:
THEORETICAL UNDERPINNINGS

3

Towards a theory of equalization payments*

INTRODUCTION

Horizontal and vertical balance

Kenneth C. Wheare's highly respected treatise *Federal Government* (1964) concludes:

There is and can be no final solution to the allocation of financial resources in a federal system. There can only be adjustments and reallocations in the light of changing conditions. What a federal government needs, therefore, is machinery adequate to make these adjustments.

Applied to the Canadian federation, this generalization certainly rings true. The many adjustments and reallocations, the changing conditions, and the institutional machinery were all dealt with in considerable detail in the previous chapter. The present chapter attempts to isolate the theoretical principles that underlie intergovernmental transfers in a federal nation, particularly those that underlie the equalization component of the transfers.

Every federation has to grapple with the two perennial problems of intergovernmental finance, namely *vertical* and *horizontal* fiscal balance. Vertical fiscal balance relates to the allocation of revenues,

* This chapter was written with Kevin Dowd of the Ontario Economic Council. Accordingly, the first person plural is used here. An earlier version of the chapter was released as an OEC Working Paper (October 1983).

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relative to the allocation of expenditure responsibilities, between the second tier of governments (provinces in Canada, states in the United States, cantons in Switzerland, laender in West Germany, etc.) and the federal government. Horizontal balance relates to the relative fiscal capacities of the provinces or states. The Canadian experience with respect to vertical balance is probably typical. At the time of Confederation, the importance of expenditure responsibilities allocated to the provinces was very limited relative to the importance of those allocated to the federal government. Partly as a result, Ottawa was given the power to levy all manner of taxes and in particular was given exclusive jurisdiction over indirect taxes (including customs), the major source of revenues at the time.¹ The march of economic and social events changed everything. The expenditure functions allocated to the provinces under the constitution—education, hospitals, welfare, highways, etc.—became progressively more important over the years. In part, this tendency was a result of the transfer to the state of responsibility for functions previously undertaken by the family or the church (e.g., welfare and to some extent education) and in part it was a result of the advance of technology (for example, the spread of the automobile and the corresponding need for highways). In any event, the provinces and their municipalities currently account for considerably more than 50 per cent of total government spending. Accompanying the increasing importance of expenditure functions falling under provincial/local jurisdiction has been an ongoing problem relating to the vertical distribution of revenues in the federation: Ottawa's share of revenues has tended over much of the postwar period to exceed its share of expenditure responsibilities. Apart from requiring the provinces to stay within their own budget constraints (for example, by borrowing, by increasing provincial taxes in order to meet the expanding demands for expenditures, or by paring expenditures), there are, in principle, three ways to handle this problem of vertical balance:

- 1 to transfer some expenditure functions to the federal government;
- 2 to transfer funds or tax room to the provinces with conditions relating to the manner in which these funds may be spent;
- 3 to transfer funds or tax room to the provinces unconditionally.

All three avenues have been utilized in the Canadian federation.

Unconditional transfers, which can be spent when and where the provinces please, are more consistent with a decentralized federation than either conditional grants or the transfer upward of expenditure functions. In theory, the transfer of an expenditure function from the provincial to the federal arena is a more 'centralist' solution than the adoption of a conditional grant. In practice, however, there may be little difference between the two, since condition-laden intergovernmental transfers can effectively emasculate provincial autonomy in the expenditure category in question.² However, this is not the place to elaborate on the relationship between centralization and decentralization and the design of intergovernmental transfers.³ It is enough to say that in the Canadian federation, where judicial interpretation of the constitution has assigned to the provinces greater power than the states possess in the United States, intergovernmental grants have tended to be less conditional than those in the U.S.—a circumstance that in turn reinforces the more decentralist character of our federation.

Why all this concern about vertical balance in a federation when equalization payments are designed to correct horizontal imbalance? The answer is that the distinction between horizontal balance and vertical balance is not as clear-cut as one might expect. In correcting for vertical imbalance by means of intergovernmental grants, the federal government can follow two quite different routes. Scott (1964, 252-53) refers to these two approaches as the *principle of derivation* and the *principle of equalization*. Under the former approach, intergovernmental grants are paid to the provinces in relation to the amounts of federal revenues generated *in* these provinces. Thus, if Ottawa transfers additional income tax points to the provinces according to the principle of derivation, the revenues received by the provinces are determined by the yield of the tax points *within* their respective jurisdictions. Almost invariably, this approach to rectifying a vertical imbalance in a federation will generate a substantial horizontal imbalance. As Scott notes, the principle of derivation is, 'in essence...a negation of geographical redistribution' (ibid., 252).

When the principle of equalization underlies the solution to vertical imbalance, it is less likely that a horizontal imbalance will result. Under Scott's definition of the principle of equalization (not to be confused with Canada's formal equalization program), vertical

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intergovernmental transfers are not related to the amounts of money derived from these provinces but rather are distributed to the provinces in an approximately equal fashion. An obvious example of this approach would be to transfer funds on an equal-per-capita basis (which, in essence, is what now occurs under the established programs).

Intergovernmental grants are, of course, not the only potential source of horizontal imbalance. More important in the Canadian federation are the provinces' *own* sources of revenues, particularly their resource-related sources. Most federations have formal programs, generally referred to as equalization programs, designed specifically to offset the horizontal imbalance in own-source revenue across provinces or states.

With this as a backdrop we now turn to the purpose of the present chapter—to attempt to provide some theoretical justification for the existence of equalization payments. It is important to note that by 'theoretical justification' we do not have in mind only economic arguments. Indeed, to emphasize this point, the analysis will begin by focusing on some noneconomic arguments that underlie Canada's equalization program. Since the chapter is quite long, a brief overview of its contents is in order.

Overview of the chapter

The analysis begins by focusing on what we refer to as the federal (or constitutional) and nationhood rationales for equalization. The federal justification for equalization payments is based on the argument that they are essential if all provinces are to have enough funds to undertake the responsibilities allocated to them under the constitution. The nationhood rationale calls for equalization on grounds that there is some level of essential services to which all Canadians are entitled, regardless of province of residence. The support for both of these rationales is drawn from the Rowell-Sirois report. However, as was noted in the historical overview, Canada's first equalization program was associated with the transfer of taxing powers back to the provinces, whereas the thrust of Rowell-Sirois was that direct taxation ought to reside at the federal level. Therefore, the third section of the analysis focuses on the rationale for equalization as the instrument that allows the decentralization of taxing powers in

the federation. To be sure, there is a very fine line between these rationales and the notion of the 'fiscal equity' or 'horizontal equity' that often forms the basis for the economic rationale for equalization. But it is precisely this line that we are attempting to draw in this chapter.

In the fourth section of the chapter the analysis shifts to the economic underpinnings of equalization, focusing first on the relationship between economic efficiency and equalization. A system of equalization payments inhibits interprovincial mobility. About this there is little doubt. The relevant question is under what conditions will impeding migration enhance efficiency and under what conditions will it retard efficiency. The efficiency case rests on the notion that, without a system of payments to equalize the differential fiscal benefits arising from the operations of provincial budgets, internal migration might well be triggered by fiscal rather than by market criteria. The analysis focuses on a series of alternative assumptions (e.g., benefit taxation, redistributive provincial budgets) with respect to the operation of provincial governments and, for each of these scenarios, examines the efficiency case for equalization.

The next section extends the efficiency rationale to incorporate the existence of provincial resource rents. As will become evident in Part IV of this study, the problem of how to treat resource revenues was at the heart of most of the problems perceived to be plaguing Canada's RNAS equalization program. The case for equalization on efficiency grounds is strongest where there are large uncapitalized differences in net fiscal benefits across provinces, and, not surprisingly, energy or resource revenues are the principal source of these large variations.

In the sixth section the focus switches to the equity arguments for equalization. While the notion of horizontal equity is commonly accepted as a public finance maxim, it is not obvious how it ought to be viewed in the context of a federal nation. Accordingly, the analysis deals in turn with 'broad-based' horizontal equity (which essentially lumps all governments together and, in effect, conducts the discussion in the context of a unitary state) and 'narrow-based' horizontal equity (which recognizes the federal nature of the country and assumes that the federal government takes as given the distribution policies of the respective provincial governments). The implications arising from these two approaches to equity differ markedly: broad-based

horizontal equity calls for the same sort of equalization program as does the efficiency criterion, whereas narrow-based horizontal equity, in the absence of resource rents, would generally call for no equalization program at all. The section concludes with our own, rather negative, views of the role that should be assigned to the conventional equity case for equalization.

Since the recent theoretical work relating to resource rents and equalization has generated so much interest, the seventh section is devoted to outlining some of the assumptions and reservations that ought to be kept in mind in the transition from theory to application.

The final substantive section focuses on some of the empirical work related to the efficiency underpinnings of equalization. Are net fiscal benefits a major determinant of internal migration? If so, then one is prepared to accept the fact that some migration may be inefficient. Do equalization payments inhibit outmigration? If the answer is yes, then equalization payments may be efficiency-enhancing. The eighth section examines what the recent empirical literature has to say about these issues. The ninth and final section offers some conclusions.

ROWELL-SIROIS AND EQUALIZATION

It is commonplace nowadays, particularly in view of the substantial resource rents in some provinces, to rationalize equalization flows in terms of the dual criteria of economic efficiency and fiscal equity. If no effort were made to provide equalization, both labour and capital might become 'too' mobile—that is, their desire to capture a portion of these resource rents would encourage them to migrate. To use the current jargon, such migration would be 'fiscally induced' or 'rent-seeking'. The end result could be a misallocation of factors of production across jurisdictions. Interestingly enough, however, it does not appear that economic arguments played a very important role in the Rowell-Sirois Commission's proposal for National Adjustment Grants—essentially, equalization payments. To be sure, the Commission's report did emphasize that the 'tax jungle' of the 1930s was wreaking havoc with national efficiency. Threatened with financial collapse, some poorer provinces were literally forced to extract taxes from every possible source, a policy that reduced efficiency and, with it, national output. Nonetheless, the Commission appears to have relied largely on what, for want of better terms, we

call federal (or constitutional) and nationhood (or political) arguments for equalization.

Equalization as the cornerstone of a federal system (the 'federal' rationale)

The Rowell-Sirois Report is frequently criticized for having been a very 'centralist' document. And in part it was, recommending as it did the transfer to the federal level of all direct taxation. However, the Report also presented a highly eloquent defence of provincial autonomy in the expenditure areas assigned to the provinces by the constitution. Moreover, in the view of the Report, the National Adjustment Grants were precisely the means by which provincial autonomy could be meaningfully secured:

[The National Adjustment Grants] illustrate the Commission's conviction that provincial autonomy in these fields must be respected and strengthened, and that the only true independence is financial security....They are designed to make it possible for every province to provide for its people services of average Canadian standards....They are the concrete expressions of the Commission's conception of a federal system which will preserve both a healthy local autonomy and build a stronger and more unified nation. (Canada 1939, 125)

The Report goes on to point out that the issue of horizontal fiscal imbalance was not a major concern in 1867, particularly in the light of the specific subsidies that were incorporated in the BNA Act. Over time, however, conditions had altered markedly and now the initial conception of subsidies needed to be replaced by a more comprehensive and logical approach—that is, the National Adjustment Grants:

The implications for public finance of the economic and social changes which have occurred in Canada are of far-reaching importance. As a result of the transcontinental economy which was deliberately built up, with its notable concentration of surplus income, and later as a result of the disintegration of this economy [because of the Depression and the ensuing tax jungle], *no logical relationship exists between the local income of any province and the constitutional powers*

and responsibilities of the government of that province. (Ibid., 78; emphasis added)

One obvious solution would have been a transfer of these powers and responsibilities from the provinces to the federal government. The Report does not opt for this alternative. Indeed, as noted above, it mounts a staunch argument for continued provincial control of these expenditure functions. Moreover, it argues that in order to guarantee provincial autonomy, the proposed National Adjustment Grants must be *unconditional* in nature:

It should be made clear that while the adjustment grant proposed is designed to enable a province to provide adequate services (at the average Canadian standard) without excessive taxation (on the average Canadian basis) the freedom of action of a province is in no way impaired. If a province chooses to provide inferior services and impose lower taxation it is free to do so, or it may provide better services than the average if its people are willing to be taxed accordingly, or it may, for example, starve its roads and improve its education, or starve its education and improve its roads—exactly as it may do today. But no provincial government will be free from the pressure of the opinion of its own people.... (Ibid., 84)⁴

As a final comment on the Commission's emphasis on the role of equalization payments in providing the financial independence needed to ensure a province's ability to fulfill its constitutional responsibilities, as well as the necessity for these payments to be unconditional in form, the following quote is particularly apt:

The Commission's Plan [for National Adjustment Grants] seeks to ensure every province a real and not illusory autonomy by guaranteeing to it, free from conditions or control, the revenues necessary to perform those functions which relate closely to its social and cultural development. (Ibid., 80)

Equalization as a means of ensuring the full rights of Canadian citizenship (the 'nationhood' rationale)

Side by side with the Rowell-Sirois Report's federal or constitutional rationale for equalization payments is a national unity or nationhood rationale. Canadians, wherever they live, ought to have access to certain basic economic and social rights—rights that ought to attend Canadian citizenship. Since some of these basic rights fall under provincial jurisdiction, it is imperative that the provinces have funds adequate to provide them:

In considering the relative fiscal needs of provincial governments, we are mainly concerned with a few divisions of their expenditures: on education, on social services, on development. *It is of national interest that no provincial government should be unduly cramped in any of these respects.* Education is basic to the quality of Canadian citizens of the future and it is highly undesirable that marked disparities in the financial resources available for education should exist as between Canadian provinces. Social services, like education, cannot be subjected to marked disparities without serious reactions on the general welfare and on national unity. An appropriate developmental policy is required in each province, and the only standard which can fairly be applied is the policy of the province itself.... (Ibid., 80; emphasis added)

And:

[There is] danger to national unity if the citizens of distressed provinces come to feel that their interests are completely disregarded by their more prosperous neighbours, and that those who have been full partners in better times now tell them they must get along as best they can and accept inferior educational and social services. (Ibid., 79)

It is appropriate to note that while the federal and nationhood approaches are quite closely related, their implications for equalization are somewhat different. In particular, the nationhood rationale probably calls for *conditional* grants related to the achievement of certain levels of basic services. The equal-per-capita transfers associated with the established programs would appear to

satisfy the 'nationhood' approach. (This is, of course, a theme that ran through the previous chapter, namely that the formal equalization program is not the only way of dealing with the horizontal imbalance in our federation.) On the other hand, the logic of the federal rationale for equalization calls for *unconditional* payments. Canada's overall system of transfers to provincial governments would appear to incorporate aspects of both approaches, even though there is little application of the fiscal need principle in the system.

The National Adjustment Grants

When combined, the federal and nationhood approaches led rather naturally to the Rowell-Sirois proposal for unconditional National Adjustment Grants. Again, while the nationhood principle could be satisfied by equal-per-capita grants tied to the provision of the basic services essential to nationhood, the federal principle, which respects the provinces' constitutional expenditure responsibilities, pointed rather clearly in the direction of making any such payments *unconditional* in nature. Moreover, as was noted in the previous chapter, the calculations underlying the National Adjustment Grants proposal took account of the likely cost of providing the basic services in each province in relation to the provinces' ability to raise revenues (an approach that incorporated some recognition of fiscal need, since the per capita cost might vary by province). Thus the emphasis was on providing services at the Canadian average level without taxation unduly above the Canadian average level. This is of considerable interest because some of the economic justifications for equalization developed below do not rely on such things as basic levels of services or unduly high tax rates, vague as these notions may be.

To this point, the emphasis has been on the noneconomic arguments underlying the National Adjustment Grants. However, this does not mean that the grants were not defensible on economic grounds. One can find a generous sprinkling of economic principles in these and other quotations from the Rowell-Sirois Report. For example, it is possible to put the federal/constitutional rationale in terms of the public finance concept of horizontal equity—individuals alike in other respects should not bear different fiscal burdens on the basis of their provinces of residence in order to receive a given bundle of government services. Similarly, the Report's nationhood argument

can easily be made to incorporate the notions of interprovincial spillovers or externalities and even fiscally induced migration. Nonetheless, from our reading at least, the Rowell-Sirois Commission relied more on arguments that relate to constitutional federalism and the rights of citizenship than on arguments that relate to individual maximization or economic efficiency.

EQUALIZATION AND TAX DECENTRALIZATION

There is a tendency on the part of most, if not all, students of equalization to look to the National Adjustment Grants as the forerunner of our formal equalization program. There is, of course, a sense in which this is appropriate. For example, the wording of the constitutional provision relating to equalization is similar to the Rowell-Sirois rationale for the National Adjustment Grants. But the link with Rowell-Sirois can be overstressed. As long as the federal government maintained control over direct taxation, and as long as the vertical transfers adhered to the 'principle of equalization' (in Scott's use of the term), there was little need for a formal equalization program.

Responding to the advent of Quebec's personal income tax in 1954, and to the Tremblay Report's argument that there could be no meaningful provincial autonomy unless the provinces had fiscal (tax) autonomy, Ottawa moved in the direction of decentralizing the powers of direct taxation. Turning over parts of the income tax to the provinces implied transferring funds to them according to the 'principle of derivation'. In effect, this meant larger per capita transfers to provinces with larger per capita shares of personal and corporate income. An equalization program, linked directly to the transfer of these direct taxes to the province, was a logical development of decentralizing the tax system. Since the tax revenues in the richer provinces could obviously be spent as these provinces wished—that is, the money was unconditional—it also followed logically that any equalization flows arising from tax decentralization should likewise be unconditional.

Two comments are relevant here. First, this rationale for equalization was never really contemplated by Rowell-Sirois, since the Commission envisaged that the federal government would retain control over all direct taxation.

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Second, and more important for our purposes, decentralization provides yet another rationale for equalization payments. The system of equalization permits the decentralization of the system of direct taxation in the federation. Without equalization, the poorer provinces would never go along with the richer provinces' desires for more autonomy and decentralization in direct taxes. Moreover, this view of equalization also suggests that equalization is a program that benefits *all* provinces—without equalization, it is likely that the richer provinces would have far less fiscal autonomy on the taxation side.

In general, therefore, it seems clear that the nature of Canada's equalization programs, past and present, owes much more to 'political' rationales than it does to any notion of economic efficiency. In the series of constitutional meetings held in the summer of 1980, one of the few occasions of unanimity came with the agreement that the principle of equalization should be enshrined in the constitution. Is there any doubt that this consensus was rooted in the nationhood, federalist, and tax decentralization rationales, rather than in, say, a concern over efficiency? Moreover, the wording of the constitutional provision does not, in our opinion, square well with the efficiency arguments for equalization. Despite all of this, the remainder of the chapter is devoted to a detailed discussion and evaluation of the economic underpinnings of equalization. This evaluation is motivated in large measure by the fact that there has been a very substantial recent research effort devoted to the economic philosophy underlying equalization.

EFFICIENCY AND EQUALIZATION: THE NET FISCAL BENEFITS APPROACH

The concept of fiscal equity

The traditional economic argument for equalization derives from the notion of 'fiscal equity'. While this is a rather imprecise term, most economists would accept some variant of John Graham's elaboration of the principle:

The principle of fiscal equity is based in turn upon—indeed is an extension of—the widely accepted principle of horizontal equity, i.e., of equal treatment of equals...the rationale for applying this principle is twofold. First, since the fiscal

capacity (tax base) of provinces and localities will inevitably vary, because of differences in resource base, location, occupational mix, etc., equalizing fiscal transfers are necessary to eliminate differential fiscal pressures which otherwise would *encourage the movement of well allocated resources from low- to high-income provinces and localities and impede the movement of resources from high- to low-income provinces where they would be more productively allocated. This is the economic argument.*

Second, if citizens are, by and large, to distribute themselves most productively in a nationally integrated economy, their fiscal treatment should not be dependent upon the fiscal capacity of the province or municipality in which they happen to be located. This is an ethical argument the affirmation of which by all provinces and citizens helps to bind the country together and provide a basis for national unity. (1982, part III; emphasis added)

Hence, fiscal equity has two components—an efficiency aspect and an equity aspect. We shall deal with the former first, in the context of a model that is based on individual maximization.⁵

Comprehensive income and net fiscal benefits

Consider the precepts underlying the neoclassical model, assuming initially that there is no government sector. Individuals (or families) are assumed to be rational maximizers, armed with sufficient knowledge of both product and factor pricing. Markets are assumed to be characterized by pure competition, so that prices for products reflect marginal values to consumers and factors are paid in accordance with their marginal productivities. Transaction costs and mobility costs are assumed to be negligible. Within such a paradigm, resources will be optimally allocated and welfare will be maximized.

Now let us introduce a public sector. Initially, let this take the form of a single, national government (i.e., a unitary state). The government is assumed to treat similarly situated citizens in a similar manner (i.e., horizontal equity prevails). The efficiency criterion is that factors be paid their marginal products and that these marginal products be everywhere the same. Given factor mobility, satisfying this criterion will result in an efficient allocation of economic activity over space. The actions of the government may give rise to some

resource adjustments, since neither taxes nor expenditures are likely to be allocatively neutral; however, there will be little impact on the geographical allocation of economic activity, since the central government is assumed to treat like citizens in a like manner and we are ruling out major government initiatives that might arbitrarily confer an advantage on certain sections of the country. It is assumed that the central government is able to capture any rents that exist, so that they benefit all citizens irrespective of where they reside.

The next step is to assume the presence of a *federal* rather than a unitary state. Each province provides a distinctive bundle of public services, in accordance with the preferences of its citizens. At this juncture, it is convenient to introduce the notion of 'comprehensive income', defined as market sector income plus the 'net fiscal benefits' (henceforth 'NFBs') generated by the actions of the provincial governments. NFBs are the difference for individuals between the benefits they receive from provincial government operations⁶ (essentially, expenditures) and the costs imposed on them for the provision of these services (essentially, taxes). Obviously NFBs can be either positive or negative. In a province whose government engages in substantial income redistribution, the NFBs will probably be positive for some individuals and negative for others. In a province with access to substantial resource rents, the NFBs can be positive for *all* individuals.

A rational economic agent will maximize his/her comprehensive income. Hence, in choosing among *otherwise identical* situations, an individual (or family) will opt for the province where the NFBs are the highest. (Recall that the underlying assumption is that mobility costs are negligible.) Indeed, if NFBs are higher in one province than in the others, the individual will be willing to take up employment there *even in a lower-paying position*, provided the comprehensive income level is higher. Given persistent differences in NFBs, migration will so alter marginal productivities that marginal comprehensive income will be everywhere identical in the long run. What this implies is that, other things being equal, including the absence of capitalization of rents, the nominal wage rates for identical jobs will be lower in provinces with higher NFBs.

While migration in response to NFBs is optimal behaviour on the part of the individual, it is not optimal from the point of view of the nation, since it means that factors are no longer being allocated in a

pattern consistent with the efficiency criterion for optimal resource allocation. In the economics literature such migration has come to be referred to as 'fiscally induced' or 'rent-seeking'; the latter term focuses on the fact that rents are likely to be the principal source of differing NFBs.⁷ How can this situation be remedied? Obviously, if marginal productivities are to call the allocation tune, NFBs must be equalized. Hence, on efficiency grounds, NFBs across provinces should be equalized.

This leads to two important questions. First, what are the likely sources of differences in NFBs across provinces? Second, is a program of equalization payments to the provinces an appropriate vehicle for offsetting these differences? The latter issue is dealt with first.

Equalization as a means of ensuring fiscal efficiency

Equalization payments are designed to go to provinces, not to individuals. Yet the logic of the above analysis is that fiscal efficiency concerns relate to individuals. Hence, from an efficiency standpoint the 'first-best' solution to the problem of differences in NFBs across provinces is a system of differentiated *interpersonal*, not interprovincial, grants and taxes. This point is recognized by Boadway and Flatters. However, they argue that this 'first-best' solution has its own problems:

Why use a system of intergovernmental rather than interpersonal transfers? First, to calculate NFBs on an individual taxpayer basis would be very difficult, costly, and controversial. Second, and more important, to implement an interpersonal rather than an intergovernmental equalization program could amount to the federal government's overriding all redistribution decisions of provincial governments. (1982, 52)

Some evaluation of these points is warranted. In principle, one would want to treat NFBs as part of the individual's income for tax purposes. However, they are not generally treated as taxable income. Hence, one can argue that the first-best solution is to tax comprehensive income, not to set in place a system of equalization payments to provinces. Even though one can isolate a fiscal inefficiency in the presence of multi-level government, remedying this

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inefficiency by a set of payments to governments is very much a *second-best* approach. So too is the view that these payments ought to be unconditional, since a finely tuned system of conditional payments to provinces could be a close equivalent to a set of differentiated payments to individuals and, hence, a first-best solution. Unconditional grants may provide the *potential* for solving the problem, but whether this potential is realized depends on how the provinces use the grants. Finally, the thrust of the efficiency approach is to 'eliminate' the differences between NFBs, a goal that requires the creation of some sort of interprovincial revenue-sharing pool. Merely bringing up poor provinces' NFBs to some average level does not solve the efficiency problem. In short, a set of unconditional equalization payments does not follow directly from the individual maximization process underlying the efficiency case. This does not mean that an equalization system would not move the system toward increased efficiency. What it does mean is that efficiency considerations *alone* would not lead one to the type of equalization program that has characterized our federation.

Nonetheless, it is important to isolate the manner in which multi-level government can give rise to fiscal inefficiency. To this we now turn.

The sources of differences in provincial NFBs

In order to appreciate just what is at stake in attempting to equalize NFBs, it is necessary to consider some of the various ways in which differences in NFBs across provinces can arise. By far the most significant factor is the existence of rents, particularly rents from natural resources; however, the discussion of the role of rents is delayed until later in the chapter. The present section proceeds under the assumption that such rents are absent from the system.

Benefit taxation

Benefit taxation is defined as a system under which each resident is taxed an amount exactly equal to the value of public sector output he consumes. As is noted in a recent paper dealing with the economic basis for equalization:

The stringent nature of this condition [benefit taxation] is evident in the fact that the analogy to private goods is complete, except that the government supplies the output rather than a private firm. A new resident will need extra public sector goods produced for him specifically, and he can expect to be charged the maximum price which is equal to the value he places on them. Since every other jurisdiction to which he might go operates likewise, there are no differential fiscal residuals. (Wilson, Percy, and Norrie 1981, 13)⁸

Even though this is a rather restrictive assumption, and obviously does not conform very closely to reality, the insight it affords is very important: *under the assumption that provincial budgets operate on a benefit principle, NFBs will be everywhere identical (i.e., equal to zero), so equalization will not be called for on grounds of economic efficiency.* Therefore, if an equalization program were put in place in such a system, it would be *inefficient* and lead to reduced national output and *too little* migration. This is so because it would of necessity generate positive NFBs in the 'poorer' provinces and thereby reduce the incentive to take up more productive opportunities in the richer provinces.

Regional disparities and equalization

Let us continue with the assumption that provincial budgets operate under the benefit principle and add a further one—namely that there are significant income disparities across the provinces. This does not change the above conclusion. *There is no efficiency argument for equalization in the face of regional disparities as such.* The fact that the benefit principle applies to government budgets is the critical factor in arriving at this conclusion. In a later section we shall dispense with the assumption of benefit taxation and thereby allow the possibility of regional disparities leading to differing NFBs. In this case, there is an efficiency rationale for equalization. However, *it arises not from the presence of regional disparities as such but rather from the impact of these disparities on the NFBs across provinces.*

Once again, mounting an equalization program under these circumstances would introduce a distortion to the system. Resource allocation would no longer be determined in accordance with market returns and national output would, as a result, be lower.

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Public goods

A pure public good is one that all citizens consume equally and for which the total cost of production is not a function of population. One person's consumption of such a good does not affect another's; that is, there is no congestion or crowding-out problem associated with a pure public good. Hence, jurisdictions with large populations can provide pure public goods at a lower tax price per unit than can jurisdictions with small populations. Moreover, migration from the low-population to the high-population area will exacerbate the problem—the tax price of providing the pure public good will fall further in the high-population area and will rise in the low-population area. Assuming that people's preferences for pure public goods are everywhere identical, this will create a fiscal distortion—the NFBs will be higher in more populous provinces. Thus, *the existence of pure provincial public goods does provide a rationale for equalization payments on efficiency grounds.*⁹

At a practical level, this argument is not very important, since it is difficult to think of many government services that qualify as pure public goods. Legislatures may qualify to some extent. In this regard, it is interesting to note that section 118 of the original BNA Act provided for special payments to cover the cost of provincial legislatures—\$80,000 for Ontario, \$70,000 for Quebec, \$60,000 for Nova Scotia, and \$50,000 for New Brunswick. These payments can be construed as subsidies for the legislatures, since the amounts were far more nearly equal than were the provincial populations.

Of more practical importance are 'quasi-public' goods. Quasi-public goods, like pure public goods, may be consumed jointly, but eventually congestion costs set in. Parks, schools, libraries, and roads probably fall into this category. Up to a point, one person's consumption of these public goods and services does not impinge on another person's consumption. As Wilson, Percy, and Norrie point out,

jointness of consumption means falling average costs with respect to the provision of these goods, which means that population size matters. Heavily populated areas will be able to provide such outputs at a lower cost to residents than will more sparsely populated areas. This means that some citizens are better off than their counterparts in other provinces...there will now be a fiscal incentive to move to the

low cost jurisdictions, creating potential allocation problems.
(1981, 15)

In short, *under the assumption that preferences for quasi-public goods are identical across the citizenry and that they are provided under conditions of falling average cost, there is a case for equalization payments as a means of ameliorating differences in NFBs.*

Regional disparities and redistributive provincial budgets

Consider the following two assumptions:

- 1 Provincial budgets are 'progressive' in terms of their distributional impact. For convenience, one can assume that expenditures benefit all members of the population equally while taxes rise in accordance with incomes. Obviously, this assumes away benefit taxation.
- 2 Regional disparities exist in the sense that aggregate income per capita differs across provinces.

As Boadway and Flatters point out, two implications arise from these assumptions:

First, persons with above-average personal incomes in a province will suffer a net loss from this redistributive provincial activity because they contribute more in taxes than they receive in goods and services from the provincial governments. The opposite is true for persons with below-average incomes. Second, persons living in provinces with above-average per capita incomes will receive higher NFBs from provincial expenditures....To see this, consider the simple case in which provincial expenditures are distributed among local residents on a uniform per capita basis, while taxes are proportional to individual incomes. Proportional taxes generate a greater per capita amount of tax revenues the higher the average income level. Since expenditures are assumed to be distributed on an equal-per-capita basis, this means that individuals *at any given income level* will receive greater NFBs on this account in a province with a high per capita personal income level. In general, the greater the overall progressivity of provincial fiscal structures, the greater the variation in NFBs between the rich and poor in

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any given province and the greater the average difference in per capita NFBs between high- and low-income provinces. (1982, 54)

Perhaps an example, drawn from a recent paper by Auld and Eden (1983), will make this clearer. Table 3.1 assumes that there are three persons in province A and three in province B. For each province, the benefits of public good expenditures are distributed equally to each person and total government expenditure equals total tax revenue. Province A is 'richer'—the average income is \$15,000, whereas it is \$10,000 in province B. With an assumed tax rate of 20 per cent, the per capita benefits in A are \$3,000 and in B \$2,000. For the two categories of persons with identical incomes (i.e., the individuals with incomes of \$5,000 and \$10,000), NFBs are larger in province A.

Therefore, in the face of such NFBs, people will tend to migrate from the lower-average-income province to the higher-average-income province. This migration is fiscally induced or inefficient since it will move 'well-allocated resources', to use Graham's term, to the higher-income province—to province A in the example. It has been argued that the solution in the case of regional income disparities and redistributive budgets 'is an equalization program that would serve to eliminate all interprovincial differences in NFBs from provincial budgets' (Boadway and Flatters 1982, 57).

As long as all provincial governments maintain the *same* degree of progressivity on the tax and expenditure side, and if the system of equalization payments is of the *net* variety (i.e., if it takes the form of an interprovincial revenue-sharing pool), then a network of unconditional payments to provinces might indeed be the theoretically correct (first-best) solution. However, it is easy to see why this is unlikely to be the case. While such a system will provide the *potential* for eliminating the differential NFBs, what occurs in practice will obviously depend on the redistributive policies of the various governments. For example, by manipulating the column of per capita benefits in Table 3.1, the reader can generate NFBs that, for some income levels, flow in the *opposite* direction, even before any equalization takes place. Of course, one can argue that the nature of the federation requires us to ignore the manner in which provinces

TABLE 3.1
Net fiscal benefits: nominal examples

	Income of each individual	Tax rate 0.2 times income	Per capita benefits of public goods	NFB
<i>Province A</i>				
	\$ 5,000	\$ 1,000	\$ 3,000	\$ 2,000
	10,000	2,000	3,000	1,000
	30,000	6,000	3,000	– 3,000
<i>Province B</i>				
	5,000	1,000	2,000	1,000
	10,000	2,000	2,000	0
	15,000	3,000	2,000	– 1,000

SOURCE: Auld and Eden (1983 , Table 1)

redistribute income within their boundaries, since it is their constitutional prerogative to choose whatever method they prefer. However, this argument derives *not from efficiency as such* but rather from bringing into the analysis some element of the constitutional and/or nationhood arguments for equalization.

Recapitulation

This, then, is the essence of the case for the existence of an equalization program on efficiency grounds *in the absence of rents*. It is appropriate to note, given the historical emphasis of this study, that an understanding of these issues in the Canadian context can be traced back to the early 1960s and the writings of John Graham. For example, with respect to the argument that regional disparities *per se* do not provide a case for equalization if budgets are distributionally neutral or if benefit taxation prevails, Graham notes that

if public services were divisible and were provided on a benefit basis or according to the income levels of individuals [i.e., distributionally neutral budgets] the problem would not arise; similarly situated individuals in different provinces could be equally treated with respect to benefits and burdens without any equalization transfers, *even if average incomes or income distributions differed*. In this case it would be meaningless to

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talk about differences in fiscal capacity. (1964, 5; emphasis added)

Matters are very different when provincial budgets are not distributionally neutral (note that Graham's term 'fiscal residuum' is essentially equivalent to our use of the term 'NFB'):

When there is an egalitarian redistributive element in the fiscal system, so that the 'fiscal residuum' (defined as benefits from public services minus burdens of taxation) decreases with income, differential fiscal treatment of similarly situated individuals in low- and high-income provinces will occur, because of the necessity of imposing higher tax rates in the lower income provinces to provide any given level of services. The concepts of fiscal capacity and differences in it then become meaningful. (Ibid., 6)

The solution requires a system of equalizing transfers to offset these differing NFBs, or else optimal resource allocation will not occur (the following quotation takes on more force when one realizes that Graham is also assuming that resource rents influence NFBs):

Without transfers, differential fiscal treatment will exert pressure indiscriminately on factors to move from a poor province or locality, even factors that are well located there, and will inhibit the inward movement of factors from richer provinces and localities, even ones that would be better located in the poor province or locality....[Such an equalization scheme] would be geographically neutral in that the inducement of higher rewards elsewhere would still operate with respect to poorly located factors at the same time that differential fiscal pressure was eliminated with respect to well-located factors. (Ibid., 17)

Thus, it is clear that Graham is not arguing for an equalization program that would stem factor mobility as such, but rather for one that would counteract only migration that was 'fiscally induced' or 'rent-seeking' (i.e., migration motivated by differential fiscal pressure, as he calls it). The point is made again in his discussion of equalization and the Atlantic Provinces:

The Atlantic Provinces provide a useful illustration. Differences in marginal productivity probably call for continued net emigration of some labour and capital. But the withholding of federal transfers from the Atlantic Provinces in order to accelerate the movement of labour and capital from that region would not be economically sound, for it would encourage not only the desirable movements of factors whose productivity is relatively low there, but also the undesirable movement of factors whose productivity compares favourably with what it would be in other parts of the country. It would also discourage the desirable inward movement from other parts of the country of factors whose productivity would be greater in the Atlantic Provinces. (Ibid.)

In summary, then, the following observations relating to efficiency and equalization appear appropriate:

- In a federal system, the possibility exists that net fiscal benefits will vary across jurisdictions.
- Differential NFBs, to the extent that they are not capitalized, will impede optimal resource allocation, since factors of production will take account of NFBs as well as market returns in selecting their province of location.
- Efficiency requires that these uncapitalized differential NFBs be equalized.
- An equalization program is not normally the first-best approach to remedying the efficiency problem, but when coupled with practical and constitutional constraints, it can acquire a political-*cum*-economic 'first best' rationale.
- The mere existence of an equalization program does not imply that efficiency is enhanced. Under benefit taxation or distributionally neutral provincial budgets, the presence of equalization would be efficiency-retarding. If budgets are redistributive and if average income levels vary across provinces, differential NFBs are likely to arise. Whether a given equalization program is too generous or too limited under these circumstances will depend on the program itself as well as on the variance of the NFBs. In other words, it is an empirical question.
- Under the nationhood and constitutional rationales, the appropriate equalization program focuses on levels of basic services

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and unduly high tax rates. Under the efficiency rationale, the focus is different—it is on eliminating differences in NFBs or equalizing fiscal capacity, with no specific reference to basic services or levels of taxation.¹⁰ However, since NFBs can arise from the expenditure side of provincial budgets as well as the revenue side, the progressivity features of public services and taxes would presumably enter into the calculation of the NFBs across provinces.

—The efficiency criterion would argue for a net equalization scheme (i.e., rich provinces paying in and poor provinces drawing from the equalization pool).¹¹ Only in this way could differences in NFBs be eliminated, short of using the traditional Canadian scheme and equalizing to the province with the highest NFBs.

RESOURCE RENTS, EFFICIENCY, AND EQUALIZATION

Resource rents and NFBs

The above arguments relating to the efficiency rationale for equalization apply to the case of resource rents as well. However, it is important for several reasons to single out resource rents for special treatment. First of all, they have dominated the recent discussions relating to the design and adequacy of equalization payments. The point was made in Part II that resource rents have led to several modifications of the equalization formula. Second, they are both very large and geographically concentrated. Hence they have a substantial impact on NFBs across provinces.

In focusing on the interaction between resource rents, NFBs, and equalization, it seems appropriate to adopt a conceptual framework that differs slightly from the which one utilized above (see Boadway and Flatters 1983). Let the comprehensive income of a representative individual in a province be defined as follows:

$$\text{comprehensive income} = \text{factor income after provincial taxes} + \text{per capita benefits from provincial government activities.}$$

Only provincial budget activities are taken into account, under the assumption that taxpayers in similar economic situations are treated similarly by the federal government. If one assumes that benefits from provincial activities stem from expenditures financed by taxes on

individuals and taxes on resource rents, the previous expression can be written:

$$\text{comprehensive income} = \text{after-tax factor income} + \text{per capita benefits from taxes on individuals} + \text{per capita benefits from resource rents collected by the provinces.}$$

Suppose we make the further assumption that one can dichotomize provincial budgetary policy in the following manner: with the proceeds from taxes on individuals the government provides benefits in exact proportion to the taxes paid, while with the proceeds from the taxes on resources it provides benefits on an equal-per-capita basis. This means that in terms of, say, personal income taxes the provincial budget is distributionally neutral. Overall, however, it cannot be, since the expression for real income now becomes:

$$\text{comprehensive income} = \text{factor income before provincial taxes} + \text{per capita resource revenues.}$$

In the absence of resource rents, as we saw in the previous section, the assumption that each resident gets back in public services an amount equal to his taxes paid does not lead to differing NFBs and does not provide a rationale for an equalization program. In the presence of resource rents, this is no longer the case—as the above expression makes very clear. Differential per capita values of resource rents across provinces will generate differential NFBs, irrespective of the assumptions relating to the distributive nature of provincial budgets. Moreover, the fact that resource rents accruing to governments vary dramatically across provinces may encourage reallocation of labour across provinces to take advantage of high NFBs in the resource-rich provinces.

It is important to note that the concept of rents that contribute to provincial differences in NFBs incorporates all economic rents and not just the royalty revenues of the western energy-producing provinces. The 'implicit' rents from the operations of Quebec and Ontario hydro facilities, which do not show up as provincial revenues but rather are transferred back to the provinces' residents in terms of lower prices for electricity, also qualify as benefits that alter NFBs across provinces.

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This potential for rent-seeking or fiscally induced migration has, not surprisingly, been recognized in many quarters. Nearly a decade ago Clark made the following observation:

In the final analysis the adjustment of people to resources...is likely to take place in one of two basic ways: one, by a redistribution of rents among provinces, and the other by a redistribution of people among provinces. To the extent that the adjustment takes place through a reallocation of rents, pressures bringing about a redistribution of people will be diminished. To the extent that the adjustment does not take place through rents, the population pressures will increase. (1976, 110)

More recently, Courchene and Melvin focused on much the same issue in the context of an analysis of the regional implications of Alberta's Heritage Fund:

...it seems probable that the existence of the Fund will, ironically enough, drive the marginal productivity of labour in Alberta down relative to that in Ontario. On the margin the prospective migrant will equate the marginal product of labour in Ontario with the marginal product of labour in Alberta *plus* the migrant's share of the non-capitalized portion of the Fund. In some sense the [Heritage Fund] is a 'common property resource' waiting to be privatized in future years and it will encourage greater migration than if it were already privatized, in much the same way as the common property nature of the fishing industry encourages too many fishermen. (1980, 202-203)

Thus, from a theoretical perspective, there is a case to be made for addressing the efficiency problems arising from resource-rent-related NFBs. Two questions arise: First, as a practical or empirical matter, is this an issue that warrants redress? Second, supposing that it is, is an equalization program likely to be an appropriate solution? A later section will focus on the first question. We now turn to a discussion of the second.

*Alternative ways of handling resource-related NFBs*Privatization of rents¹²

Suppose that in 1973 (or in 1947, at the time of the Leduc oil find) the Government of Alberta distributed ownership rights on a *once-and-for-all* basis to the residents of the province—that is, it ‘privatized’ the rents. All energy rents would accrue to the original owners as they were realized, and no new shares would be issued. In other words, these original owners would have a claim on the present and future stream of energy rents. What would be the implications of such a scheme for NFBs and for equalization payments? First of all, these energy rents or royalties would no longer be a direct source of positive NFBs. There would be no incentive for Canadians to move to Alberta to obtain a share of the energy resources—they would have already been disbursed. Second, Albertans would not be ‘locked in’ to their province. They could migrate and carry their ownership titles with them. Presumably, these shares would be marketable and could be traded like any other shares, so that Canadians could buy a claim to these rents without moving to Alberta. Thus, resource rents *per se* would no longer be a determinant of migration.

In other words, if the rents were privatized then rent-seeking migration would be effectively eliminated. However, since proportionally more people with claims on these rents would probably still reside in Alberta, and since the returns on their shares would be taxable, it is likely that Alberta’s income tax revenues would be higher than they would be if the rents had not been privatized; that is, the province’s royalty revenues would drop sharply as a result of privatization, but this drop would be partially offset by a rise in personal income tax revenues. Provided that Alberta’s budgets were not operating under the benefit principle, the revenues from this source would probably generate positive NFBs. (This situation was dealt with above in the text preceding Table 3.1.) Under the pre-existing equalization program, these revenue increases would be eligible for equalization. Since Ottawa’s income tax revenues from Alberta residents would also be rising apace, there would be a rough-and-ready ‘geographical’ equity as far as the funding of the scheme was concerned.

It is important to distinguish between this once-and-for-all allocation of property rights and other sorts of allocation schemes.

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Suppose, for example, that energy royalties collected by the energy provinces were distributed *annually* to all residents of the province on 31 December of each year. Under such a system of allocation, *rent-seeking migration would still persist*. Moreover, existing residents would have to remain in the province if they wished to continue to receive the windfalls.¹³

Hence resource rents *per se* pose a problem for fiscal efficiency only if they are not fully privatized—that is, only if the property rights to the stream of rents remain in the hands of the provincial governments, or what is the same thing, remain unallocated (and uncapitalized). Again, it is very important to recognize that non-appropriated rents include the ‘implicit’ rents from provincial hydro resources as well as the high-profile royalties collected by the oil- and gas-producing provinces. And, as we shall see later, the annual values of these hydro rents run into billions of dollars.

Redefining income for tax purposes

Since the efficiency problem arises because of the divergence between market income and comprehensive income, one possible solution is to alter the definition of income for taxation purposes to incorporate resource-derived benefits, whether they arise from provincial royalty collections or from below-market prices for services such as electricity. Looking at the issue in this manner is highly instructive, since it provides a rationale for heritage funds. This is so because: (a) the residents of a resource-rich province are *not* required to include any such royalty revenue as part of their income; (b) the province itself, despite the fact that it is receiving factor incomes (i.e., rents, profits, or interest), is exempt from paying federal tax on this income by virtue of section 125 of the constitution.¹⁴ Thus, by collecting royalties and then disbursing these monies (either immediately or over time, using a heritage fund as a buffer) in the form of lower provincial tax rates or greater provincial services, the province can in effect transfer the funds *tax-free* to its residents. Any sort of privatization scheme would subject the monies to federal taxation. This is an interesting vicious circle. The incentives in the system are such that they encourage provinces to refrain from allocating property rights to resource rents. But the fact that they therefore accrue to the

provinces as 'common-property' resources means that they induce rent-seeking migration to the extent that they are not capitalized.

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Concern over section 125 was expressed nearly a decade ago by Gainer and Powrie (1975). They argued that the rents, profits, and interest accruing to provincial governments are in effect factor incomes and, as such, ought to be treated for tax purposes much as they would be treated if they had arisen in the private sector. Their specific proposal was that 30 per cent of energy royalties be transferred from provincial to federal coffers (30 per cent being roughly equivalent to what the federal tax payable would have been had these royalties accrued to private sector individuals). This money would be used to equalize the remaining provincial revenues in accordance with the then-existent equalization formula.

More generally, an equalization program can be a first-best solution to the efficiency problem. Recall that the assumptions underlying this section are that taxes paid by residents are in proportion to public services received and that revenues received from royalties are converted into equal-per-capita benefits. Under these special circumstances, a system of payments to provinces that equalized these NFBs would be identical to a series of transfers to individuals.

Note, however, that the type of equalization program required here is an *interprovincial rent-sharing pool*—that is, an arrangement for transferring funds from the coffers of the high-NFB provinces to the low-NFB provinces. Equalizing these NFBs via the RNAS system would not solve the problem, since the sources of the federal government's revenues across provinces are not distributed in the same proportions as the discrepancies in NFBs. In a recent paper, Boadway, Flatters, and LeBlanc recognize this:

Under a gross scheme (i.e., rich provinces do not pay into the funding of equalization) the federal government pays for equalization out of its general revenues....Since a large proportion of its general revenues comes from personal income taxes, this means that the burden of an increase in equalization payments due to an increase in resource revenues falls disproportionately on provinces with high personal

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incomes. A net scheme (where rich provinces pay in) would avoid this problem: the increase in equalization would be funded by the same increase in revenues that caused it. (1983, 177)

In other words, there is no efficiency case in the true sense of the term for any of the recent formulations of Canada's equalization program.

Summary

In considering the relation between economic efficiency and equalization, it is essential to keep in mind one important principle. The efficiency argument for equalization does not arise because the provinces are, for one reason or another, deserving of equalization payments. It arises because, without equalization, *individuals* would be subject to fiscal pressure that could lead to migration decisions inconsistent with an optimum allocation of resources. This is in marked contrast to the federal or constitutional argument for equalization, with its emphasis on providing the *provinces* with the financial ability to deliver their constitutional responsibilities. This dichotomy of rationales may disconcert the economist and the political scientist alike. But it does emphasize the reality that few public policy issues are the exclusive property of any one discipline.

Later in the chapter we shall return to some of the practical and empirical realities that presumably influence the degree to which one would want to design an equalization program solely on the basis of efficiency. For now, however, attention is directed to the equity argument for equalization.

EQUITY AND EQUALIZATION

The equity case for equalization is usually based on the public finance concept of horizontal equity, namely, like treatment of similarly situated individuals. In particular, if two persons have the same degree of well-being before a change, they should have it afterwards as well. 'Change' in the present context refers to the impacts on individuals of governments in a federal state. The measuring rod that we shall adopt for assessing an individual's well-being is 'comprehensive income', which of course includes market income as

well as NFBs.¹⁵ However, this is still not a sufficient basis for addressing the horizontal equity issue: it is necessary to stipulate an *initial position* with which comparisons can be made. Boadway and Flatters suggest two alternative initial positions, *broad-based horizontal equity* and *narrow-based horizontal equity*.

The first, what we shall call *broad-based horizontal equity*, is that persons with the same real comprehensive income ought to be treated identically by all governments taken together, both federal and provincial. Since provincial governments violate this norm, the federal government must take steps to redress the differences in treatment. That will be the task of equalization payments. The second, or *narrow-based horizontal equity*, is that the federal government need only concern itself with the *equity of its own actions* when deciding upon a policy. The real income levels achieved [including NFBs], after the policies of the provincial government actions, have been taken as a starting point. The federal government then only ensures that its own actions are equitable. It turns out that there is still some role, if only a restricted one, for equalization payments under narrow-based equity. The role arises out of the fact that the existing federal tax system does not capture all elements of real income—in particular it misses NFBs of provincial government activities. (1983, 111; emphasis added)

Boadway and Flatters suggest that one way to view this distinction is in terms of *property rights* or *endowments*:

If different provinces provide identical citizens with different net real income benefits as a result of provincial activity, and if one wished to award full property rights to individuals over such benefits,... (based, say, on an interpretation of the constitution), then the federal government should take the *post-provincial government position as the starting point for horizontal equity*. If, however, one does not wish to assign such property rights on the basis of (province of) residency, the initial position should be that which would prevail in the absence of all government fiscal activity, including that of the province. It turns out that both views call for some sort of equalization on equity grounds, but for widely differing types and amounts. (1982, 53; emphasis added)

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The first subsection below focuses on the implications for equalization arising out of the broad-based horizontal equity concept. The next subsection deals with narrow-based horizontal equity. The last part of this analysis of equity and equalization asks whether any notion of horizontal equity has much meaning in a federal state.

Broad-based horizontal equity

If labour is immobile (or migration costs are infinite), then broad-based horizontal equity requires that the net impact on individuals of *all* governments will leave previously similarly situated individuals similarly situated after the fact. *This implies that NFBs must be equalized across provinces.* Thus, the achievement of broad-based horizontal equity, when labour is immobile, like the achievement of efficiency, provides a rationale for equalization. The difference, of course, is that the efficiency case is valid only if labour is *mobile*, since in the absence of mobility there can by definition be no fiscally induced migration.

It does not follow that a system of equalization payments is the 'first-best' solution to the problem of achieving horizontal equity when labour is immobile. Indeed, all the caveats that were raised with respect to the efficiency case also apply here, even though no efficiency problem arises from differing NFBs when migration costs are infinite.

Labour is perfectly mobile

Under the opposite assumption, namely that migration costs are negligible, what is the appropriate notion of equity in a federal system? In our opinion, equity in a federal context is the ability of the provinces to tailor their policies to the perceived needs of their citizens on the one hand and the right and ability of citizens to choose their locality on the basis of these differing bundles of services on the other. Consider the following passage from Norrie, Percy, and Wilson:

[Suppose that an] Alberta resident with a market income of \$10,000 receives a net increase in fiscal benefits of \$1,000 while his identical (with respect to market income potential) counterpart in Ontario does not. Assume first that labour mobility is perfectly responsive to real income differentials among regions. Ontario residents, seeing the new fiscal benefits in Alberta, will begin to move there, depressing

wages in the recipient region and raising them in the sending one. By assumption, this flow will continue until the gain to the last migrant is exactly offset by the loss from lower private earnings. *In this case there can be no horizontal inequities.* The representative individual is exactly as well off in either province, after the adjustment in factor earnings has taken place. (1982, 291; emphasis added)

In our view, the contention that there would be no inequities in this situation is correct. Apparently many public finance economists disagree. What is at issue is the definition of equity in a federation. If by equity one means identical fiscal treatment in each province—that is, identical NFBs ($NFB_1 = NFB_2$) and identical market treatment ($Y_1 = Y_2$) for similarly qualified individuals—then the above statement is not correct. This is so because in equilibrium all that the situation described in the quoted passage requires is that $Y_1 + NFB_1 = Y_2 + NFB_2$. Hence, it is possible for Y_1 to fall below Y_2 by the same amount as NFB_1 exceeds NFB_2 . However, it does ensure that persons who were in an identical *overall* position prior to any change in NFBs can also be in an identical *overall* position after the change.

Does equity in a federation imply that for similarly qualified individuals NFBs across provinces are identical—that is, that NFB_i equals NFB_j ? If it does, then it also implies *efficiency*, since Y_i will equal Y_j . In our view this definition of equity is too restrictive. The economic theory of federalism allows provinces to generate alternative bundles of goods, services, and taxes, which will surely generate differentials in cross-province NFBs over previously similarly situated individuals. Ensuring identical fiscal treatment with unconditional equalization transfers is, in our view, neither possible nor desirable. What is available to the individual is the opportunity to migrate in order to select his preferred bundle of public services. Under the assumption of perfect (costless) mobility, migration will ensure that an individual can achieve an overall income (market income plus NFBs) similar to his counterparts elsewhere. In this sense equity is attainable, although NFBs may not be equalized. To define equity in terms of identical treatment across all provincial governments (i.e., identical NFBs) would appear to be the antithesis of the economic theory of federalism.

Thus, in our view, *there is no equity case for equalization when labour is perfectly mobile.* However, there is an efficiency

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case—indeed, a very strong one, since with perfect mobility individuals will migrate in response to even the slightest variations in NFBs.

Hence, it is tempting to argue that as mobility increases (i.e., as migration costs fall) the efficiency case for equalization is strengthened and the broad horizontal equity case is weakened. However, it does *not* follow that the equity case for equalization becomes compelling when mobility is reduced, since there are other solutions to the problem of high migration costs. The case for *transfers that subsidize mobility* appears to be every bit as strong as the case for equalization transfers.

This does not mean that one cannot call for equalization payments in terms of some 'overall' notion of equity. After all, that is what the 'nationhood' rationale is all about. But in terms of what we perceive to be the notion of equity within the traditional economic (i.e., individual maximization) approach to federalism, the case for mounting an equalization program on equity grounds appears to be wanting.

Narrow-based horizontal equity

It will facilitate the analysis of narrow-based horizontal equity to restate the formulation of comprehensive income introduced in connection with the interaction between resource rents, efficiency, and equalization, namely that comprehensive income equals factor income before taxes plus per capita resource revenues. To make this formulation more general, let us express it as follows:

$$\text{comprehensive income} = \text{factor income before taxes} + \text{per capita source-based taxes,}$$

where *source-based taxes* are those levied at the source of income generation. Source-based taxes include corporate taxes, excise taxes on purchases of firms, natural resources taxes, and property taxes on businesses. Personal income taxes, retail sales taxes, excise taxes on consumption, payroll taxes, and residential property taxes are classified as residence-based taxes, that is, they are taxes levied on the individual's income or use of income in his province of residence.¹⁶ Recall that the assumptions underlying our analysis are: (a) that individuals get back in provincial services an amount equal to the

residence-based taxes they have paid (i.e., provincial budgets are distributionally neutral with respect to residence-based taxes), and (b) that the benefits from source-based taxes are distributed on an equal-per-capita basis.

Despite the fact that narrow-based horizontal equity accepts the postprovincial position as the starting point for implementing horizontal equity, there is still a role for equalization or some alternative redistribution scheme. This is so because individuals with the same comprehensive income after the impact of provincial budgets are *not treated equally by the federal taxation system*. The problem arises because factor payments before taxes are part of taxable income at the federal level, whereas per capita source-based taxes (or rather the benefits therefrom) are not. In other words, NFBs arising from, say, resource revenues are not treated as taxable income. *The obvious theoretical solution would be to alter the definition of income for federal taxation purposes to incorporate these NFBs*. Another approach would be to initiate a program of equalization across provinces that would offset this horizontal inequity.

It is here that efficiency and equity point in different directions. As noted above, the efficiency approach would be to equalize any and all NFBs. Under the narrow-based horizontal equity approach, only NFBs that arise from source-based taxes require equalization. Moreover, only a fraction of these NFBs would be subject to equalization, namely, *the portion that equalled the average federal marginal tax rate in the province*. This arrangement would have the impact of subjecting these NFBs to federal taxation, which, as noted above, is the source of the lack of narrow-based horizontal equity.

We now alter the above example to assume that provincial budgets are redistributive. In particular, suppose that the benefits of residence-based taxes are distributed in a progressive manner, so that persons with low incomes in the province will now have positive NFBs and vice versa. The distribution of the benefits of source-based taxes remains the same—that is, equal per capita. Does this change the nature of the desired equalization program under narrow-based horizontal equity? The answer is no. This is so because these NFBs arise solely from the province's own distribution decisions—overall, the NFBs from residence-based taxes will sum to zero. And narrow horizontal equity takes the post-provincial position as the starting point for applying federal standards of equity. In other words, under

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narrow-based horizontal equity the federal budget need not be concerned with offsetting the nationwide horizontal inequities that are introduced by provincial government budgets.

Horizontal equity and the economic theory of federalism

If the essence of the economic approach to federalism is that it enhances economic welfare by allowing provinces to tailor their range of goods and services in accordance with citizen preferences, then it is not surprising that the notion of broad-based horizontal equity, which is geared to the elimination of all differences in NFBs, runs into some conceptual trouble. After all, it effectively overrules the provinces' right to cater to the needs of their citizens. Moreover, if the attempt to establish horizontal equity is via an equalization program (rather than a first-best scheme), horizontal equity will in the end *not* be achieved unless the provinces operate on the benefit principle (in which case there would be no basis for equalization anyway) or have identical degrees of progression in their budgets. As Scott noted two decades ago (1964, 254), 'if...horizontal equity is not in fact to be achieved, is there any point in making the grants?'

This point has recently been made in a slightly different manner by Wilson, Percy, and Norrie. If the essence of federalism is that provinces can choose the degree of vertical equity (i.e., different treatment of differently situated citizens) that they deem appropriate, correcting for horizontal equity by means of equalization may create as many problems as it solves:

Take the case of two relatively wealthy individuals with the same before-tax income, one in St. John's and one in Edmonton. Suppose that the real cost of providing government services in Newfoundland is much higher so that, in the absence of any intergovernmental transfers, the St. John's resident is only as well off after taxes as a second resident of Edmonton with less gross income than either of the other two. Broad-based horizontal equity demands that we transfer revenue to the government of Newfoundland to put the two wealthy individuals back on an even footing, all the while being content with the welfare gap between the two Edmontonians. This can be even more dramatic since in practice this usually means we tax the poorer (as well as the

wealthier) Edmontonian to subsidize the consumption of public sector output by the wealthy Newfoundlander.

It seems more than a little strange, in fact, that we in Canada devote so much effort and resources toward achieving horizontal equity across provinces, yet tolerate much greater inequalities among individuals within each province. It might be argued...that it would be impolitic to interfere with the income distribution within the recipient jurisdiction. But it could be argued in response to this that Ottawa's equalization obligations cease at that point where the degree of horizontal equity across provinces approximates that degree of vertical equity within the have-not areas. If the political leaders in these provinces are content with their own internal income distribution, then surely they cannot insist on a more equitable standard horizontally. (1981, 13)

Boadway's and Flatters' introduction of the concept of *narrow-based* horizontal equity was no doubt intended to take account of some of these issues and, more particularly, to reconcile horizontal equity with the realities of federalism. Innovative and valuable as this contribution may be, it is nonetheless the case that the type of equalization program that is consistent with narrow-based horizontal equity is rather far removed from either the past or the present equalization formulas: indeed, in the absence of source-based taxes, horizontal equity does not call for any system of equalization payments.

What normally passes for equity can, in our opinion, better be incorporated under the efficiency criterion on the one hand and the nationhood and federal arguments on the other. With respect to equalization, we submit that an equally valid approach to horizontal equity, in the context of an economic approach to federalism, would be the provision of mobility subsidies, which would make it possible for all citizens to 'vote with their feet'. However, we also recognize that many of our colleagues will disagree with this view. In any event, the remainder of the chapter, which deals with several theoretical and practical issues relating to the establishment of an equalization program, will focus primarily on the efficiency case for equalization.

FROM THEORY TO PRACTICE

The analysis to this point has not always made an explicit distinction between the terms NFBs, energy rents, and source-based taxes. Strictly speaking, the efficiency case for equalization depends on isolating and equalizing NFBs. Under certain conditions, increases in energy royalties will generate equivalent increases in NFBs. In others they will not. One of our purposes in this section is to isolate these conditions. More generally, our purpose is to emphasize that considerable caution is needed in converting theory to practice.

Capitalization, crowding out, and heritage funds

Critical to the theoretical analysis underlying the efficiency case for equalization was the assumption (sometimes implicit) that NFBs were not capitalized. For example, it may well be that because electricity in Ontario is subsidized substantial benefits arise from locating industry in that province. But if these benefits are reflected in site values, then there may be no net gains from moving there. Again, if energy royalties are reflected fully in the price of land or existing structures, then the potential migrant has to 'buy' his share of the rents. Full capitalization of these benefits would, on average, wipe them out. To be sure, intramarginal rents will always exist for certain categories of migrants. In principle, however, full capitalization of rents is essentially identical to a once-and-for-all privatization of these rents; that is, no fiscal benefits are generated.

With land in such abundance in the West, it is hard to imagine a scenario of full capitalization over the longer term. Yet it is likely that over shorter periods usable land and structures will be in relatively fixed supply, and that migration will therefore generate congestion or crowding which in turn will drive up property values. Even if usable land is in ample supply, it is clearly in the interests of its owners to lobby the authorities to impose zoning restrictions and the like—barriers to entry that in effect capitalize the rents.

One can take this further. Most analysts argue that the portion of energy revenues placed in heritage funds should be excluded from any NFB calculations. They represent benefits that cannot be taken into account until the funds are actually drawn upon to provide additional public service or reduce provincial taxes. However, if potential migrants view these funds as a source of future benefits, the resulting

influx may result in levels of capitalization *in excess* of the calculated benefits.

In theory, then, it is only the *uncapitalized* portion of NFBs that ought to be eligible for equalization. Moreover, it seems to us that the burden of proof should rest with those who argue that there is not full capitalization, rather than where it now appears to rest, namely with those who argue that these rent-generated benefits may be capitalized. In this context, it is instructive to consider the views of U.S. economist Wallace Oates (1984):

...existing fiscal differentials (e.g., varying levels of taxable capacity) across jurisdictions will tend, to some extent at least, to be capitalized into property values so that those who choose to live in fiscally disadvantaged areas are compensated by having to pay lower land rents; from this perspective, horizontal equity under a federal system is, to some degree, self-policing. The need for equalizing grants in a federation is thus questionable. Perhaps it is best to regard their role as a matter of 'taste'.

It may well be that this attitude explains the absence of a formal equalization program in the United States, although it also is the case that the variation in NFBs across the various states are much less than those in Canada (largely because of the absence of state resource rents).

In any event, more attention has to be paid to the likelihood that some portion of resource-related NFBs will be capitalized.

Terms of trade and factor-price equalization

The large increases in energy royalties over the past decade have not simply arisen out of thin air. They have been generated by the growth in world and domestic energy prices. In economic terms, there has been a shift in the terms of trade in favour of the energy-producing regions of the country. Courchene and Melvin point out that, at the macro level, the principal impact of the terms-of-trade change has been transfer of purchasing power from the East (the non-energy provinces) to the West (the energy provinces). In their words:

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In the short run this will be accomplished principally through *financial* transfers—residents of the east or their governments will be drawing down savings or else increasing borrowing either from the west or outside the country. Over the longer term the transfer will tend to be effected in real terms—easterners will pay for their (probably decreased) oil imports through an increase in exports either to the west or to the rest of the world. Essentially, therefore, domestic absorption by easterners must decline by the amount of the transfer and vice versa. This is the macro adjustment problem associated with the terms-of-trade effect. (1980, 194)

Occurring simultaneously is what might be referred to as a micro adjustment. The increase in the terms of trade increases marginal productivities of both labour and capital in the energy sector:

...real wages will tend naturally to rise in the west relative to the east. A fall in the relative wage in the east would at the same time (a) enhance exports to and capital investment from the west and (b) increase output in the east, both of which would help effect the real transfer. Combined with this will be a movement of labour from the east to the west in response to the real wage differential which will further facilitate the real transfer. (Ibid., 197)

Now, all of this would take place *even if there were no increase in provincial royalty revenues*. The existence of substantial energy rents accruing to the governments in the West (neglecting some of the offsetting factors discussed later) may produce an *additional* incentive for migration, since these revenues will generate an increase in NFBs. Thus an increase in labour flows to the West is *not* by itself evidence of inefficient migration.

Indeed, if markets were working effectively, the presence of higher NFBs would imply that the increase in the real wage in the West would not rise as much as it would in the absence of the government royalties. It seems to us, therefore, that one ought to get concerned about inefficient migration only when wages in the West *fall* from their original position relative to wages in the East. This would imply that migration was being driven by a concern over comprehensive income (market income plus NFBs), and that the NFB component was

dominant. But casual empiricism suggests that market wages in the West have not fallen relative to those in the east.

In any event, the point of all this is to emphasize that the correlation between rising resource rents in, and increased migration to, the West does not automatically imply that the increased mobility is inefficient.

Gross rents versus net rents

There is another reason why focusing on energy rents or source-based taxes may be misleading—they may not convert on a one-to-one basis into NFBs. To assume that they do is to ignore the provincial expenditures that may be required to generate these rents—for example, expenditures to establish and maintain the necessary infrastructure (roads, telephones, schools, civil servants) or, in the case of Quebec Hydro, settlement claims to native peoples. It is evident, therefore, that it is *net* rather than *gross* royalties on rents that generate benefits and that ought to be taken into account in the calculation of NFBs and equalization payments.

In principle, of course, this dictum should apply to all revenue categories. However, the provincial expenditures required to collect revenues from most sources do not vary much across provinces in per capita terms or in expenditures per dollar of revenue collected. But this is clearly not true of resource-based revenues.

Forgone rents

The type of equalization formula called for on efficiency grounds is a *net* scheme—that is, an interprovincial revenue-sharing pool from which the poor provinces draw and to which the rich provinces contribute. As Helliwell and Scott note in assessing the contributions to the pool, '[any such] system must give credit to Alberta for the sharing already underway in the form of sales of oil and gas to other Canadians at less than world oil prices' (1981, 53). As the domestic price approaches the world price this transfer will disappear. However, Alberta's forgone rents have already amounted to tens of billions of dollars.

Interestingly enough, this transfer of forgone revenue to other Canadians is more consistent with the efficiency arguments outlined earlier than is the present equalization program. The transfer

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bypasses provincial governments and goes directly to consuming Canadians. Moreover, it is in fact a *net* scheme, since it represents a direct transfer from high-NFB provinces to low-NFB provinces. Finally, unlike the RNAS approach, with its arbitrary personal income override, it does not exclude Ontarians. The problem, of course, is that it generates its own efficiency concerns because the domestic price of energy is held beneath world prices.

Confiscatory taxation

A fifth concern relating to the efficiency criterion is that the complete equalization of NFBs (via an interprovincial rent-sharing pool) would levy a near 100 per cent tax on the resource provinces. This in turn would severely curtail the incentive for these provinces to develop their own resources. Indeed, the tax could be greater than 100 per cent if no allowance were made for the provincial expenditures required to generate the resource revenues—that is, if royalties entered the formula on a gross rather than a net basis. Hence, most advocates of equalizing energy rents would settle for a partial equalization of these rents in order to preserve the provinces' incentives to develop their resource bases.

A three-region approach to equalization

The final concern relating to the transition from theory to practice is that implicitly, if not explicitly, the arguments for and against the efficiency case for equalization tend to focus too much on a comparison between Alberta and the recipient provinces. According to Dales (1983), both the view that equalization enhances efficiency and the view that it retards efficiency tend to be presented in terms of what he calls 'one-distortion' models. Both approaches are correct on their own terms. The argument that equalization is efficiency-retarding supposes a setting in which provincially supplied goods and services are produced under diminishing returns and sold at a tax price that equates their marginal cost with their marginal benefit. The effect of equalization is to subsidize public services in 'poor' regions, thereby keeping the tax price of public output lower than its marginal benefit and reducing the incentive to migrate. Dales calls this the 'Maritimes model'. At the opposite pole is the 'Alberta model', in which energy royalties are used to subsidize taxes—in effect, there exists a 'Royalty

Subsidy' that encourages in-migration to Alberta. Dales notes that what much of the current thinking with respect to equalization does is

marry the two One-Distortion models of the 'Maritimes' and 'Alberta,' and produce one Two-Distortion model of 'Canada' in which the two subsidies exactly offset one another, thereby creating the same economic Utopia that occurs in a No-Distortion model. We may then conclude that the Equalization policy is 'justified' by the Royalty distortion, and that Ottawa cleverly neutralizes Edmonton. Or we may prefer to look at things the other way around and conclude that the Royalty policy is 'justified' by the Equalization distortion, Edmonton having cleverly neutralized Ottawa. (Ibid., 257)

The problem with this approach, as Dales notes, is that it assumes a two-region model. If one adds a third region—call it Ontario—the analysis no longer holds. The implication of the 'Maritimes model' in a three-region context is that under the current equalization scheme there is too little out-migration from the Maritimes (or, more generally, from equalization-receiving provinces) to Ontario. The implication of the 'Alberta model' is that there is too much migration from Ontario to Alberta. The latter problem was even more severe under the RNAS version of equalization, which (a) denied Ontario the equalization payment that the formula indicated it was entitled to and (b) called upon its residents to finance some 40 per cent of the equalization flows. Thus even if one believes that there is an efficiency case for equalization, it would appear to be fairly clear that an arrangement such as the RNAS scheme cannot claim to do much in the way of enhancing overall efficiency. More generally, it is very important not to fall into the trap of focusing only on the Maritimes and on Alberta when evaluating the efficiency aspect of equalization.

In theory, the efficiency case for equalization is reasonably compelling; in practice, as we have shown, a number of very significant qualifications to the theoretical argument have to be taken into account. In this section we have tried to isolate some of the factors that merit further research in order to ascertain the degree to which the existence of, say, provincially collected energy rents requires the corrective action of an equalization program on efficiency grounds.

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To this point, the analysis of the efficiency case for equalization has ignored the critical empirical issues. Do differences in NFBs across provinces affect the migration decision? If there is no fiscally induced migration, there is no efficiency case for equalization payments. Relatedly, do equalization payments retard the migration process? If not, then they can hardly be viewed as a solution to fiscally induced migration. The last substantive section of this chapter is devoted to a survey of the literature relating to the influence of fiscal variables on the migration decision.

FISCAL STRUCTURE AND INTERNAL MIGRATION: THE EMPIRICAL EVIDENCE

More than a decade ago, Courchene addressed the question of whether or not fiscal variables influenced the migration decision (Courchene 1970). His conclusion, based on a set of regression equations, was that both equalization payments and unemployment insurance transfers did serve to inhibit out-migration. It is important to recall that this work was completed prior to both the surge in provincial energy royalties after 1973 and the reworking of the unemployment insurance (UI) legislation in 1971, which not only increased UI benefits but also incorporated longer benefit duration for the poorer regions of the country. These were among the developments that later led Courchene to argue that, far from eliminating regional disparities, both the level of the overall transfer system and incentives embodied in it were confirming and perhaps even exacerbating them (see, for example, Courchene 1978). More recently, this argument has come to be known as the 'transfer-dependency thesis'. Essentially, it holds that the transfer system is jamming up the regional adjustment process and encouraging factors of production (particularly labour) to remain where they are rather than to seek employment in regions of the country where their marginal productivities would be higher.

When substantial energy rents began to accrue to the resource provinces, the case for an equalization program as a means of *enhancing* efficiency gained popularity among academics: equalization would serve to curtail that portion of the out-migration to the resource-rich provinces that was motivated by fiscal rather than market factors. Thus, it is no less important for this hypothesis than it is for the transfer-dependency thesis that equalization be shown

empirically to inhibit migration. We shall have more to say about these two competing hypotheses in the concluding section.

In any event, given the prominence of the efficiency arguments for equalization, it is hardly surprising that substantial further interest has been shown in the empirical relationship between fiscal structure and migration. By far the most ambitious effort in this direction is the Economic Council of Canada study by Winer and Gauthier (1982). In summarizing the results of this study in its special report, *Financing Confederation: Today and Tomorrow*, the Council makes the following point with respect to the relationship between equalization payments and migration: 'Unconditional grants (including equalization) have significantly slowed the out-migration of low-income groups from the rest of Canada to Alberta and British Columbia' (1982, 141).

Of particular interest are the Council's results from a simulation exercise, based on Winer's and Gauthier's work, that attempted to forecast what migration rates over 1971 to 1977 would have been if (a) equalization payments had been frozen at their 1971 levels, (b) Western natural resources revenues had remained at their 1971 levels, and (c) the post-1971 regional variation in UI benefits had not been put in place. For out-migration *from* the Atlantic provinces, the simulation yielded these results:

...migration rates from the Atlantic provinces to Saskatchewan and Alberta for the low-income group were between 40 and 65 per cent higher than they would have been had western natural resource revenues remained at their 1971 level. The corresponding increase for the middle- and high-income groups varied from 20 to 30 per cent.

With respect to the role of equalization, the results are more complex. The effect of equalization on rates of migration is ambiguous. [However], the 'best' results [i.e., those in accordance with theoretical prediction]...show that equalization payments would have retarded the migration of low-income persons to all destinations except Manitoba (which also receives substantial equalization payments)....

[With respect to the modification in UI,] the simulation suggests that, on balance, changes to the unemployment insurance system retarded out-migration from the Atlantic region to other provinces....For example, the rate of

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out-migration to Ontario of low-income persons was between 35 and 42 per cent lower in 1977 than it would have been in the absence of any changes to the unemployment insurance system. (Ibid., 142)

Regarding the impact of these three variables on migration *into* Alberta and British Columbia, the Council concluded:

...fiscal benefits financed by natural resource revenues have attracted [migrants] in all income groups. For example, the rate of migration to Alberta by those in the low-income group is increased by about 13 per cent as a result of the increase in natural resource revenues in the West. The corresponding rate of increase for the middle- and high-income groups is about 10 per cent....the increase in equalization payments, which to a large extent was the result of a rise in western natural resource revenues, produces a reduction in migration rates to Alberta and British Columbia between 6 and 16 per cent for the low-income groups and between 2 and 6 per cent for the middle- and high-income groups. (Ibid., 143)

Thus, the Winer-Gauthier simulation provides some valuable new information about the two areas that are critical to the efficiency case for equalization. First, it does appear from the evidence that the presence of resource revenues attracts migrants. In other words, people do appear to move in response to differences in NFBs across provinces. Second, equalization payments tend to retard out-migration—that is, without equalization, even more persons would have migrated to the resource provinces. On the surface, therefore, it would appear that equalization flows enhance efficiency.

However, in our opinion it is necessary to treat these results with considerable caution. Our principle concern is that the estimation procedure's treatment of the rise in energy revenues subsumes the terms-of-trade effect on marginal productivities in the resource regions. It is disconcerting to find *all* of the migration to the West in response to this energy revenue described as 'fiscally induced' and none of it attributed to the increase in marginal productivities that are associated with energy price increases. To be sure, Winer and Gauthier did attempt, with another set of variables, to capture these

productivity changes, but we believe that much more work in this direction is required before any definitive conclusions can be drawn.

A second concern has to do with just who it is that is migrating. If unemployed easterners are flocking to Alberta in search of work, this cannot be construed as inefficient migration, at least in the way that we have been using the term. Courchene (1974) follows a sample of Canadians through four years of their lives, focusing on variables such as location, income, and employment experience. The results for this period (1965-68) suggest rather conclusively that there are substantial income gains associated with geographical mobility, both in absolute terms and relative to comparable control groups that did not move. It is information of this sort, updated to take into account the burgeoning of resource revenues in the 1970s, that offers the most promising route to a determination of the extent to which the increased migration to the West is fiscally induced and the extent to which it is the product of market factors. Nonetheless, the research by Winer and Gauthier has advanced our knowledge of the migration process and does support the dual notion that NFBs can trigger migration and that an equalization program will inhibit some of this movement.¹⁷

Norrie and Percy (1984) take a quite different approach to the problem of identifying the degree of fiscally induced migration. The authors construct a multi-sector model of a small, open economy (Alberta), insert some reasonable parameter values, and then use the model to isolate the impact of a 1 per cent increase in the price of energy. Their 'base case' assumes that resources are privately owned. Under this assumption, a 1 per cent increase in the price of energy will generate *only* a terms-of-trade effect. Their other specifications incorporate provincial resource ownership and, therefore, also allow for the generation of NFBs in response to the energy price increase. In the base case, a 1 per cent increase in energy prices leads to a 1.10 per cent increase in the labour force in the long run, whereas in the simulations that allow for financing of provincial government goods and services out of resource revenues the increase in the labour force varies from 1.72 to 1.87 per cent. If these estimates are to be believed, they suggest a very large terms-of-trade impact on labour supply—for example, a 50 per cent increase in the price of energy would, in the long run, call for a 55 per cent expansion of Alberta's labour force. Adding the fiscally induced component would yield a labour force

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growth of 90 per cent. What we read from these results is that (a) fiscally induced migration is important, but (b) the terms-of-trade component is also important, *so much so that by itself it could easily account for all the recent westward movement of labour.*

Norrie and Percy are quite aware of some of the defects of their model.¹⁸ Nonetheless, the approach is a novel one and contributes further to our information about fiscally induced migration and the role of a system of equalization payments as an aid to efficiency.

CONCLUSION

This completes the survey of the analytical underpinnings of equalization. We recognize that in reviewing the various arguments for equalization we have not touched all of the bases. For example, one often hears that equalization is intended to compensate regions such as the Maritimes for the 'policy-induced' out-migration associated with Macdonald's National Policy, the Auto Pact, and other measures that favour the centre. Others suggest that Ontario went along with the introduction of equalization for a reason related to open-economy Keynesian economics: an increase in government expenditures would increase GNP, and given the openness of the provincial economies and Ontario's industrial superiority a substantial part of this increase would find its way to Ontario. The previous chapter advanced the argument that the timing and the form of the initial equalization program probably reflected a desire to keep other provinces, Ontario in particular, from following Quebec's lead in setting up a separate personal income tax. No doubt there are many other rationales for equalization and, hence, many different ways in which this chapter could have been written.

An intriguing question is whether the new constitutional provision can be related to any of these underlying rationales. Auld and Eden (1983) argue that the Constitution Act, 1982 embodies provisions that represent a move away from the fiscal-needs approach of Rowell-Sirois toward the principle of narrow-based fiscal equity. Part of their argument is based on the manner in which the original version of the constitutional provision differs from the final version—a difference alluded to in the previous chapter. The earlier version read 'Parliament and the Government of Canada are committed to taking such measures as are appropriate to ensure that provinces are able to

provide the essential public services...without imposing an undue burden of provincial taxation'. The adopted version reads 'Parliament and the Government of Canada are committed to the principle of making equalization payments to ensure that provincial governments have sufficient revenues to provide reasonably comparable levels of public services at reasonably comparable levels of taxation'. Auld and Eden interpret the shift in wording from 'essential public services' and 'undue burden' (which they associate with Rowell-Sirois) to the more general 'reasonably comparable' levels of services and taxation as evidence of a greater recognition of the economic approach. They do have a point in the sense that the economic approach would encompass equalizing all NFBs and not just correcting for certain specified services. Moreover, their argument also points to the provisions of the Constitution Act, 1982 that assert the proprietary right of the provinces with respect to the resource sector. In short, the new provisions could be interpreted as indicating full equalization of nonresource NFBs, with the resource revenues equalized in accordance with the federal marginal tax rate. This treatment of resources is consistent with the notion of narrow-based horizontal equity.

While policy officials are undoubtedly far more aware of the efficiency and equity arguments for equalization, we have some difficulty with the Auld and Eden interpretation. First of all, the critical difference between the two versions of the constitutional provision is that the adopted version seems to ensure that equalization payments will be made to provincial governments, whereas the earlier version might have allowed transfers to persons. Moreover, the adopted version appears to require that the transfers come from the federal government. The elimination of both interpersonal transfers and direct transfers from high-NFB provinces to low-NFB provinces runs counter to our interpretation of the economic rationale for equalization.

Although Auld and Eden do not focus on the RFPS program, one could argue that the notion of providing for 'basic' services is still very much part of the equalization rationale. By excluding Alberta from the equalization standard, the current program does not allow equalization flows to be affected by the fact that this province might be able to offer services in 'excess' of what the representative provinces can offer. Moreover, the fact that under the new formula

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resource revenues generate almost no equalization flows (see Part VI below) is surely inconsistent with the efficiency argument for equalization, since it is precisely these revenues that account for the wide variance in NFBs.

In general, our feeling is that Canada's equalization system has its roots in the nationhood and federalist notions and in the historical evolution of fiscal arrangements, rather than in any underlying economic rationale. But this distinction may be partly semantic, since what we refer to as nationhood and federalist principles some of our colleagues might prefer to view as fiscal equity. Yet there is probably another factor now in play with respect to equalization. Any program that has been in place for twenty-five years is likely to become subject to the political pressures of the hour. In discussing the various equalization programs in the remainder of the study, we shall evaluate the manner in which they square with the theoretical rationales for equalization. However, in assessing Canada's new equalization program, the RFPS, we shall also address the issue of whether equalization is just another program that can be and has been manipulated in order to ensure that the overall results represent the compromise that was deemed appropriate to the situation. In other words, is the particular formula decided upon at any given point in time largely a reflection of the results that are desired from the program?

The next part of the study is devoted to the RNAS program, particularly as it applied in fiscal year 1981-82. This review of the workings of this former version of equalization will set the stage for a discussion of the process by which Canada moved from the RNAS to the RFPS. However, the remaining parts of the study are designed to be relatively self-contained, so the reader can, if he wishes, move directly to the description and evaluation of the new RFPS approach to equalization in Part VI.

NOTES

- 1 There were, of course, other reasons for allocating indirect taxes to the federal level—for example, to preserve an internal common market.
- 2 Although conditional grants and the transfer of expenditure functions to the federal government may be similar from a vertical-balance perspective, they might well have very different horizontal impacts. That is, the incidence of the benefits across provinces of conditional grants may differ from the benefits of direct federal

expenditures. The interrelation between vertical and horizontal balance will be explored further in the following paragraphs.

- 3 For an elaboration of this theme, see Courchene (1983a). See also Smiley (1980).
- 4 The reader will note that this quotation and parts of the next have already appeared in the previous chapter. This repetition is necessary in order to make the various parts of the study relatively self-contained.
- 5 Much of the analysis draws on recent literature, principally Boadway and Flatters (1982). Other papers that have contributed to this literature include Wilson, Percy, and Norrie (1981) and Eden (1981).
- 6 NFBs should also include any differences across provinces that arise from the operations of the federal government. For purposes of the analysis, we assume that no such differences exist.
- 7 This assumes that the rents are not capitalized. The implications of a relaxation of this assumption are discussed later in the chapter.
- 8 The term 'differential fiscal residuals' can, for our purposes, be assumed to be identical to differential NFBs.
- 9 The assumption that preferences for public goods are identical across the citizenry is important to this conclusion. For example, if the demand for public goods rises with income, *then the transfers should go to the richer provinces on efficiency grounds*. See Flatters, Henderson, and Mieszkowski (1974).
- 10 This point is adopted from Auld and Eden (1983).
- 11 Interestingly enough, on this issue Graham parts company with Boadway and Flatters and others who recommend net schemes. His reasoning is along national unity lines. This is hardly surprising since the national unity concern is embodied directly in his definition of fiscal equity. See Graham (1980).
- 12 This section is based on Courchene and Melvin (1980).
- 13 This distinction between a once-and-for-all allocation of property rights and an ongoing allocation is also addressed in a recent article by Dales (1983).
- 14 Section 125 is often referred to as the provision whereby the 'Crown cannot tax the Crown.' The actual wording of section 125 is: 'No Lands or Property belonging to Canada or any Province shall be liable to taxation.'
- 15 This measure is not without its difficulties. See Boadway and Flatters (1982, 12).
- 16 These definitions are adopted from Boadway and Flatters (1983, 107).
- 17 Watson (1983) has utilized the Winer-Gauthier equations to estimate the efficiency gains from equalization. He finds that these efficiency gains are very small. With any reasonable figures for the dead weight loss of collecting taxes to finance the equalization, the cost-benefit ratios are vastly in excess of unity.
- 18 See the comments on the Norrie-Percy paper by Flatters and Courchene in Purvis, ed. (1984).

PART IV

THE WAY WE WERE: THE RNAS EQUALIZATION SYSTEM

4

RNAS equalization: description

Chapter 4 begins with a detailed description of the workings of the RNAS, including several tables relating to equalization in 1981-82. The chapter also provides a rather extensive analysis of the role that RNAS equalization played in the fiscal positions of the various provinces. In effect, this section asks whether RNAS equalization fulfilled its stated objective—to ensure all provinces access to revenues sufficient to deliver reasonably comparable levels of public services at reasonably comparable tax rates. This exercise is followed by a discussion of the way in which the RNAS approach squares with the ‘fiscal need’ concept of equalization.

Chapter 5 focuses in more detail on certain characteristics of RNAS equalization. The emphasis here is on the problems associated with the RNAS that led to the general belief that some alteration was necessary in Canada’s system of equalization payments.

While the RNAS has now been superseded by the Representative Five-Province Standard (RFPS), a knowledge of the former program is essential to understanding the rationale underlying its replacement by the RFPS. Moreover, since both the RNAS and the RFPS are ‘representative’ tax systems, much of the analysis of the features of the RNAS also applies to the RFPS. In addition, the 1981-82 RNAS equalization flows provide an appropriate backdrop for evaluating the RFPS program. Finally, to anticipate the later sections of the book, the RFPS formula is also beset with considerable problems. In my

view, it is entirely possible that some version of the RNAS will again be a serious contender for equalization when the fiscal arrangements come up for renegotiation in 1987. For all of these reasons, Canada's fifteen-year experiment with RNAS equalization must be the starting point for any thorough analysis of the issues and the process that led to the adoption of the RFPS as the basis for equalization for 1982-87.

THE MECHANICS OF THE RNAS APPROACH

The rationale for the RNAS approach

The RNAS approach to equalization was introduced in 1967. Under this approach, provinces were guaranteed per capita revenues equal to the national (all-province) average for certain specified revenue categories. These revenue categories were to be 'representative' of the taxing practices of the respective provinces. There was, of course, a rather natural evolutionary process associated with the RNAS: over the years, the provinces' taxing practices spread into new areas (e.g., lotteries), and as these new tax fields came to be 'representative' they were incorporated into the equalization program.

The rationale for the system was enunciated at its inception by the then finance minister Mitchell Sharp:

Where circumstances—whether natural or man-made—have channelled a larger-than-average share of the nation's wealth into certain sections of the country, there should be a redistribution of wealth so that all provinces are able to provide to their citizens a reasonably comparable level of basic services without resorting to unduly burdensome levels of taxation. (Canada 1966, 15)

The reader will note that this wording is very similar to that of the new constitutional provision regarding equalization. While in both cases the philosophy is clear enough, there is no unique way of making it operational, largely because there has been no explicit attempt to define just what constitutes a 'reasonably comparable level of basic services' or 'unduly burdensome levels of taxation'. Indeed, as we shall see, the RNAS equalization program essentially evaded this issue by equalizing provincial *revenues* rather than by focusing on whether basic services were reasonably comparable; that is, it attempted to ensure that no province ended up with less than the

national average level of per capita provincial revenues.¹ Sharp's statement also referred to a 'redistribution of wealth', which would presumably imply a direct transfer of funds from the rich to the poor provinces. Yet the RNAS scheme involved no direct transfers between provincial governments. All payments were made from Ottawa's coffers. Thus the program did *not* incorporate redistribution of *existing* tax revenues. Rather, Ottawa had to levy *additional* taxes (or run deficits) to finance the equalization outlays. Note that the 1982 constitutional provision relating to equalization makes no reference to a 'redistribution' of wealth or revenue. Indeed, it seems to imply that equalization payments must come from 'Parliament' or the 'Government of Canada'. This language may well rule out interprovincial schemes for equalization, in spite of the fact that many of the recent theoretical analyses of equalization discussed in the previous chapter and many of the proposed alternatives to the RNAS have embodied direct transfers between provinces.

*The RNAS equalization formula*²

In the final year of the RNAS, 1981-82, revenues were equalized over 30 revenue sources. (See Table 4.1 of this chapter for a list of these sources.) The first step in calculating equalization payments was to define a *uniform* tax base for each revenue source. Provinces were assigned this uniform base even if they did not utilize it for tax purposes. For example, Alberta had no sales tax, but for purposes of the RNAS equalization formula it was assigned a tax base calculated in the same manner as those for the remaining provinces. (The definition of the tax bases for the RNAS revenue categories are not reproduced in this study. However, those for the RFPS program are included in the appendix to Chapter 12 below. Except for a few categories such as resource revenues, the definitions are similar.)

Given these tax bases, the next step in the equalization procedure was to calculate, for every revenue source, each province's share of the total tax base. This share was then compared with the province's share of total population. A 'have-not' or 'poor' province for a given revenue source was defined as one whose share of population exceeded its share of the tax base. This percentage difference was referred to as the province's 'fiscal deficiency'. Correspondingly, a 'have' or 'rich'

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province was one whose share of the total tax base exceeded its share of population. This difference was termed a 'fiscal excess'.

To obtain equalization *entitlements*, the fiscal excesses and deficiencies for each revenue source were multiplied by the corresponding 'revenues eligible for equalization', which were normally identical to total provincial revenues from the revenue source. However, in fiscal year 1981-82 only 50 per cent of revenues from nonrenewable resources (revenue sources 16 through 22 and revenue source 30) were eligible for equalization.³ Equalization entitlements for poor provinces (i.e., those with a fiscal deficiency) were positive, and entitlements for rich provinces (those with a fiscal excess) were negative.

Each province's entitlements were then summed over the 30 revenue sources, and the total, if positive, equalled the province's equalization payment. If this aggregated total was negative, the province was classified overall as a 'rich' or a 'have' province and *its entitlement was set equal to zero*. Note that this meant that the RNAS program was *not an interprovincial revenue-sharing pool*. Rich provinces did not contribute money directly toward the funding of the program. Instead, payments were financed out of Ottawa's general revenues.

The program for each revenue source can be represented in summary form as follows (the algebraic versions of this formula and later formulas are relegated to the notes):⁴

$$\begin{array}{l} \text{Equalization} \\ \text{entitlement} \\ \text{for province } i, \\ \text{for source } j \end{array} = \begin{array}{l} \text{total revenues for} \\ \text{revenue source } j \\ \text{eligible for} \\ \text{equalization} \end{array} \left(\begin{array}{l} \text{province } i\text{'s} \\ \text{share of total} \\ \text{population} \end{array} - \begin{array}{l} \text{province } i\text{'s} \\ \text{share of total} \\ \text{tax base for} \\ \text{source } j \end{array} \right) \quad (4.1)$$

The bracketed term relates to the fiscal excess or fiscal deficiency. If it was positive, the province was 'poor' and had a fiscal deficiency for this revenue source. A negative value for the bracketed expression meant that for this revenue source the province was 'rich'; that is, it had a fiscal excess. Suppose, for example, that province A had 5 per cent of Canada's population but 8 per cent of the tax base. Suppose further that province B had 10 per cent of Canada's population and also 8 per cent of the tax base. Finally, assume that total revenues to be equalized amounted to \$1 billion. For province B, a 'poor' province,

the equalization entitlement equalled \$20 million, or 2 per cent of \$1 billion:

$$+ \$20 \text{ million} = \$1 \text{ billion (10\%—8\%)}.$$

Province A was a rich province with respect to this revenue source, since its tax base share exceeded its population share. Hence, its equalization entitlement for this revenue category was negative, that is,

$$- \$30 \text{ million} = \$1 \text{ billion (5\%—8\%)}.$$

Note that this example relates to only *one* revenue category. If the sum of the entitlements over all revenue categories for province A was also negative, the province's equalization requirement was zero. That is, it did not have to pay its negative entitlement into the fund.

EQUALIZATION IN ACTION, 1981-82

Tables 4.1 through 4.3 demonstrate the procedure followed by the Department of Finance to arrive at its March 1982 estimates of equalization payments for fiscal year 1981-82. Following a procedure that continues under the new equalization system, the Department made seven such calculations for each fiscal year, the last of them not until two years after the fiscal year was over. Largely because more and better data became available as time elapsed, there were often substantial variations from calculation to calculation. For example, in the first calculation for 1977-78 (31 December 1976), Ontario was a 'have' province with an overall *negative* entitlement of \$470.9 million. By the time of the seventh and final calculation (31 March 1980), Ontario had become a 'have-not' province with a *positive* entitlement of \$113.4 million (Department of Finance 1981b, Summary Table 1). To be sure, such a degree of volatility across estimates was uncommon; in this case, the variation had to do in part with the changing role of energy royalties in the program.⁵ Nonetheless, the reader should bear in mind that the numbers that follow have been revised by subsequent calculations.

TABLE 4.1

Tax-base shares by province and revenue source, RNAS approach, 1981-82 (per cent)

Revenue source	NFLD	PEI	NS	NB	QUE	ONT	MAN	SASK	ALTA	BC
1. Personal income taxes	1.26	0.25	2.35	1.74	23.48	38.80	3.36	3.43	11.64	13.70
2. Business income revenues	1.01	0.23	1.93	1.82	20.62	36.52	3.24	3.02	19.40	12.19
3. General sales taxes	1.62	0.31	2.76	2.26	21.90	35.20	3.34	4.08	14.77	13.76
4. Tobacco taxes	1.85	0.38	3.26	3.37	30.82	33.00	3.50	2.89	9.02	11.90
5. Gasoline taxes	1.72	0.49	3.27	3.09	23.72	36.13	3.87	4.25	11.86	11.59
6. Diesel fuel taxes	1.49	0.18	2.46	4.21	20.73	36.23	4.12	4.90	13.50	12.18
7. Non-commercial vehicle licences	1.43	0.46	3.57	2.47	25.11	36.02	4.46	3.82	11.16	11.50
8. Commercial vehicle licences	1.90	0.35	2.66	2.79	17.74	28.76	5.30	6.37	20.38	13.76
9. Revenues from sale of spirits	1.98	0.59	3.65	2.29	17.46	37.48	5.11	4.20	12.15	15.08
10. Revenues from sale of wine	0.73	0.24	2.15	1.35	29.01	34.83	3.19	2.15	9.47	16.88
11. Revenues from sale of beer	2.55	0.44	3.08	2.62	28.72	36.13	3.87	3.31	8.14	11.14
12. Hospital/medical insurance premiums	2.11	0.48	3.55	2.80	24.95	37.50	3.96	3.56	9.05	11.64
13. Succession duties/gift taxes	0.70	0.19	1.93	1.16	20.66	42.10	2.76	3.48	13.88	13.14
14. Race track taxes	0.08	0.31	1.21	0.78	21.81	49.16	3.12	0.93	11.72	10.86
15. Forestry revenues	1.74	0.00	0.36	3.26	13.07	12.22	0.70	1.17	1.78	65.70
16. Crown oil revenues	0.00	0.00	0.00	0.00	0.00	0.00	0.16	8.33	88.57	2.93
17. Freehold oil revenues	0.00	0.00	0.00	0.00	0.00	0.65	3.01	11.40	84.02	0.92
18. Crown gas revenues	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.76	86.28	11.96
19. Freehold gas revenues	0.00	0.00	0.00	0.00	0.00	2.49	0.00	0.68	96.40	0.42
20. Sales of Crown leases	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.24	84.54	10.22
21. Other oil and gas revenues	0.00	0.00	0.00	0.00	0.00	0.00	0.09	5.78	86.70	7.42
22. Mineral revenues	7.79	0.00	1.58	2.92	14.42	32.90	5.32	14.70	3.28	17.09
23. Water power rentals	17.91	0.00	0.36	1.07	38.96	16.08	7.62	1.01	0.68	16.30
24. Insurance premium taxes	1.17	0.33	2.51	2.34	27.86	36.93	3.49	3.53	10.70	11.14
25. Payroll taxes	1.38	0.29	2.72	2.00	24.41	39.91	3.82	3.12	9.88	12.45
26. Property/school taxes	1.55	0.35	2.57	2.10	23.29	37.54	4.15	4.12	12.06	12.28
27. Lottery revenues	1.45	0.37	2.88	2.13	24.34	38.85	4.09	3.91	9.50	12.41
28. Miscellaneous provincial taxes	1.36	0.30	2.35	1.95	22.71	36.80	3.74	4.36	14.15	12.28
29. Shared tax on undist. inc.	0.10	0.00	0.17	0.00	74.32	15.94	0.51	0.41	6.46	2.91
30. Shared oil export charge	0.00	0.00	0.00	0.00	0.00	0.00	0.00	70.00	30.00	0.00

SOURCE: Department of Finance (1982a, 8).

Tax-base shares

Table 4.1 presents data on tax-base shares by province and by revenue source. Each row sums to 100 per cent, apart from some rounding error. The table is straightforward and detailed analysis of the tax-base shares is left to the reader. However, one feature should be highlighted, namely the western provinces' overwhelming shares of the oil and gas revenue sources (sources 16 through 21 and 30). It was this geographical concentration of the energy tax base, coupled with rapidly rising energy revenues, that led to many of the problems that came to be associated with the RNAS equalization program (see Chapter 5). Revenue source 30, the 'shared oil export charge', deserves special mention: Saskatchewan had 70 per cent of the tax base in this category and Alberta the remaining 30 per cent, whereas for all other oil bases Alberta had a much larger share than did Saskatchewan. Revenue source 30 relates to the oil export tax that Ottawa levied in the early 1970s. As part of the National Energy Program, Ottawa agreed to return one-half of the receipts of this tax back to the exporting provinces. Most of the oil exported is heavy oil, and most of Canada's heavy oil comes from Saskatchewan. Fiscal 1981-82 was the year in which revenue source 30 first entered the formula; it was also the first year to find Saskatchewan in the ranks of the 'have' provinces for the purposes of equalization.

Fiscal excesses and fiscal deficiencies

Table 4.2 contains the ingredients for the calculation of equalization payments for fiscal year 1981-82. Row A of the table shows the provincial population shares. These sum to 100 per cent, since the population of the Yukon and the Northwest Territories is excluded from the calculations.

The main body of data in Table 4.2 presents the fiscal deficiencies or excesses by province and by revenue source. Recall that these percentages are calculated as the difference between a province's population share (row A) and its share of the tax base in question (Table 4.1). Thus for 1981-82 Newfoundland had a fiscal deficiency for personal income taxes of 1.09 per cent. This was the difference between its population share (i.e., 2.35 per cent) and its tax-base share for personal income taxes (i.e., 1.26 per cent from Table 4.1). Rounding error has crept into some of these figures.

TABLE 4.2
The mechanics of equalization, RNAS approach, 1981-82

	NFLD	PEI	NS	NB	QUE	ONT	MAN	SASK	ALTA	BC	Receiving provinces ^c	Revenues to be equalized ^d (\$ million)
A. Population share (%) ^a	2.35	0.51	3.50	2.87	26.49	35.54	4.24	3.99	9.20	11.32	39.96	
B. Fiscal capacity excess (-) or deficiency (+) by revenue source(%) ^b												
1. Personal income taxes	1.09	0.26	1.15	1.13	3.01	-3.25	0.88	0.56	-2.44	-2.38	7.52	15,334
2. Business income revenues	1.34	0.28	1.54	1.05	5.87	-0.98	0.99	0.96	-10.21	-0.87	11.10	3,966
3. General sales taxes	0.73	0.20	0.74	0.61	4.59	0.34	0.90	-0.09	-5.57	-2.44	7.70	7,546
4. Tobacco taxes	0.50	0.12	0.24	-0.50	-4.33	2.54	0.74	1.09	0.18	-0.57	1.60	963
5. Gasoline taxes	0.63	0.02	0.23	0.22	2.77	0.59	0.37	-0.27	-2.67	-0.26	4.02	2,160
6. Diesel fuel taxes	0.86	0.32	1.03	-1.33	5.76	-0.69	0.12	-0.91	-4.30	-0.85	8.09	479
7. Non-commercial vehicle licences	0.92	0.04	-0.07	0.40	1.38	-0.48	-0.22	0.16	-1.96	-0.17	2.74	780
8. Commercial vehicle licences	0.45	0.15	0.84	0.08	8.75	6.78	-1.06	-2.38	-11.18	-2.43	10.27	527
9. Revenues from sales of spirits	0.36	-0.09	-0.15	0.58	9.03	-1.94	-0.88	-0.21	-2.95	-3.76	9.97	1,083
10. Revenues from sales of wine	1.61	0.26	1.35	1.52	-2.52	0.71	1.05	1.83	-0.27	-5.56	5.79	266
11. Revenues from sales of beer	-0.20	0.06	0.42	0.25	-2.24	-0.58	0.37	0.68	1.06	0.18	1.10	442
12. Hospital/medical ins. premiums	0.24	0.03	-0.05	0.07	1.54	-2.36	0.28	0.43	0.15	-0.32	2.16	1,565
13. Succession duties/gift taxes	1.65	0.31	1.57	1.72	5.83	-6.56	1.48	0.50	-4.69	-1.81	12.56	50
14. Race track taxes	2.27	0.19	2.29	2.09	4.68	-13.62	1.12	3.06	-2.52	0.47	12.64	125
15. Forestry revenues	0.61	0.51	3.14	-0.39	13.41	23.32	3.53	2.81	7.41	-54.37	21.20	257
16. Crown oil revenues	2.35	0.51	3.50	2.87	26.49	35.54	4.07	-4.34	-79.38	8.39	39.79	1,392
17. Freehold oil revenues	2.35	0.51	3.50	2.87	26.49	34.89	1.23	-7.42	-74.83	10.41	26.95	75
18. Crown gas revenues	2.35	0.51	3.50	2.87	26.49	35.54	4.24	2.23	-77.09	-0.63	39.96	1,017
19. Freehold gas revenues	2.35	0.51	3.50	2.87	26.49	33.05	4.24	3.30	-87.20	10.90	39.96	33
20. Sales of Crown leases	2.35	0.51	3.50	2.87	26.49	35.54	4.24	-1.26	-75.34	1.10	39.96	0
21. Other oil and gas revenues	2.35	0.51	3.50	2.87	26.49	35.54	4.15	-1.79	-77.51	3.90	39.87	57
22. Mineral revenues	-5.44	0.51	1.92	-0.05	12.07	2.65	-1.08	-10.72	5.91	-5.76	14.50	304
23. Water power rentals	-15.56	0.51	3.14	1.80	-12.47	19.46	-3.38	2.97	8.52	-4.98	5.45	109
24. Insurance premium taxes	1.18	0.18	0.99	0.53	-1.37	-1.39	0.75	0.45	-1.50	0.18	3.63	288
25. Payroll taxes	0.97	0.21	0.78	0.87	2.08	-4.37	0.42	0.86	-0.69	-1.13	5.33	1,287
26. Property/school taxes	0.80	0.16	0.93	0.77	3.20	-2.00	0.09	-0.14	-2.86	-0.95	5.95	4,022
27. Lottery revenues	0.90	0.14	0.62	0.74	2.15	-3.31	0.15	0.07	-0.37	-1.08	4.70	316
28. Miscellaneous provincial taxes	0.99	0.21	1.15	0.92	3.78	-1.26	0.50	-0.37	-4.95	-0.96	7.55	2,486
29. Shared tax on undist. inc.	2.25	0.51	3.33	2.87	-47.83	19.61	3.73	4.40	2.73	8.41	12.69	4
30. Shared oil export charge	2.35	0.51	3.50	2.87	26.49	35.54	4.24	-66.01	-20.80	11.32	39.96	225
											TOTAL	47,162

^a Department of Finance (1982a, 5). Figures rounded to second decimal place.

^b Ibid., 9.

^c These totals refer to the sums of the entitlements (positive or negative) for the provinces of Newfoundland, Prince Edward Island, Nova Scotia, New Brunswick, Quebec, and Manitoba—i.e., the 'have-not' provinces.

^d Ibid. Note that the figures for revenue sources 16-22 and 30 are only one-half the total revenues from these sources, and that the revenues for source 20 are set to zero because this category had been phased out.

No province was 'poor' across the board, although several came very close. Prince Edward Island was a 'have' province only for revenue source 9 (revenues from sales of spirits). For this revenue source its share of the tax base (i.e., its share of the volume of domestic and imported spirits consumed in Canada) exceeded its population share, but for all the remaining 29 sources the reverse was true.

It is instructive in terms of what follows to focus again on the oil and gas revenues (sources 16 through 21 and 30). Most provinces had a zero tax base for these sources; consequently their *fiscal deficiencies were identical to their population shares*. Consider, for example, the data for Quebec. From row A, Quebec's population share was 26.49 per cent. And so was its fiscal deficiency for each and every fossil-energy revenue category. In other words, Quebec's equalization entitlement for these sources was 26.49 per cent of all the revenues eligible for equalization. Much the same was true of Ontario, whose fiscal deficiencies for the oil and gas categories were in the neighbourhood of 35 per cent. This circumstance, combined with the fact that revenues from these sources have escalated sharply, is the principal reason why Ontario has found itself with a positive equalization entitlement from fiscal year 1977-78 onward.

Alberta represents the opposite pole. Consider revenue source 19 (freehold gas revenues). Alberta's fiscal excess was 87.20 per cent, reflecting the fact that its share of the tax base was 96.40 per cent and its population share 9.20 per cent.

Revenues to be equalized

The last column of Table 4.2 presents data by revenue source on the revenues eligible for equalization. Except for categories 16 through 22 and 30 (nonrenewable resources), the revenues entering the formula were identical to total provincial revenues. For the nonrenewable resources, 50 per cent of total provincial revenues entered the formula. Category 20 (the sales of Crown leases) was an exception. By 1981-82 this category had been phased out of the RNAS equalization formula; consequently the eligible revenues are set to zero in the table. (Under the new RFPS formula the category has been reinstated in full.) Since category 20 generated zero equalization entitlements for 1981-82, it could have been deleted for presentation purposes. However, its inclusion does highlight the fact that the

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RNAS program was undergoing considerable surgery even prior to the renegotiations.

Equalization entitlements

Equalization entitlements for 1981-82 appear in Table 4.3. Entitlements under the RNAS formula were the product of the fiscal deficiencies or excesses and the revenues to be equalized. Thus the \$167.4 million figure for Newfoundland for personal income taxes (revenue category 1) was the product of Newfoundland's fiscal deficiency for this category from Table 4.2 (1.09 per cent) and the personal income tax revenues eligible for equalization (\$15,334 million, from the last column of Table 4.2).

The sum of the entitlements for each province appears in row B of Table 4.3. At the entitlement level, the program was *symmetrical*; that is, the sum of the negative entitlements (for Saskatchewan, Alberta, and British Columbia) equalled the sum of the positive entitlements for the remaining provinces. This symmetry also held across each revenue source. One assessment of Alberta's overall fiscal capacity can be obtained by focusing on its massive negative entitlement—\$3.651 billion. And obviously this figure would have been much larger if oil and gas revenues had entered the formula fully rather than to the extent of only 50 per cent.

Equalization payments

Equalization payments appear in row C of Table 4.3. As noted above, the provinces with negative entitlements were assigned a *zero* equalization payment; that is, they did not contribute any money directly toward the financing of the program. Ontario was excluded from receiving payments in 1981-82 by federal legislation that came into effect in early 1981. The legislation deemed ineligible for equalization payments any province whose personal income per capita in the current year and in the previous two exceeded the national average level. Effectively, this applied only to Ontario and it was so intended. For the remaining provinces, the values of their equalization payments were identical to their entitlement values, as is clear from a comparison of rows B and C.

Total equalization payments for fiscal year 1981-82 were estimated to be \$4.160 billion. Quebec's share was \$2.306 billion, or 55 per cent

TABLE 4.3
Equalization entitlements by province and revenue source, RNAS approach, 1981-82 (\$ millions)

A. Entitlements by revenue source ^a										Equalization payments per \$ of revenues equalized (cents) ^b	
	NFLD	PEI	NS	NB	QUE	ONT	MAN	SASK	ALTA	BC	TOTAL
1. Personal income taxes	167.4	39.3	176.3	173.3	461.2	-499.1	135.0	85.1	-374.1	-364.6	1,152.6
2. Business income revenues	53.0	10.9	62.1	41.6	232.9	-39.0	39.5	38.2	-404.8	-34.4	439.9
3. General sales taxes	54.8	15.0	55.5	46.1	346.4	25.8	67.7	-7.2	-420.3	-183.8	585.5
4. Tobacco taxes	4.8	1.2	2.3	-4.8	-41.7	24.5	7.4	10.5	1.7	-5.5	-31.1
5. Gasoline taxes	13.6	0.4	4.9	-4.8	59.8	-12.7	7.9	-5.7	-57.6	-5.7	81.8
6. Diesel fuel taxes	4.1	1.5	5.0	-6.4	27.7	-3.3	0.6	-4.4	-20.6	-4.1	32.4
7. Non-commercial vehicle licences	7.2	0.3	5.5	3.1	10.7	-3.7	-1.8	1.3	-15.3	-1.4	19.1
8. Commercial vehicle licences	2.4	0.8	4.4	0.4	46.1	35.7	-5.6	-12.5	-58.9	-12.8	48.5
9. Revenues from sales of spirits	3.9	-0.9	-1.7	6.3	97.9	-21.1	-9.5	-2.3	-32.0	-40.7	96.1
10. Revenues from sales of wine	4.3	0.7	3.6	4.1	-6.7	1.1	2.8	4.9	0.7	-14.9	8.8
11. Revenues from sales of beer	0.9	0.3	1.8	1.1	-9.9	-2.6	1.6	3.0	4.7	0.8	-5.9
12. Hospital/medical ins. premiums	3.8	0.5	0.8	1.0	24.0	-36.9	4.3	6.7	2.3	-5.0	32.9
13. Succession duties/gift taxes	0.8	0.2	0.8	0.9	2.9	-3.3	0.7	0.3	-2.3	-0.9	6.2
14. Race track taxes	2.8	0.2	2.8	2.6	5.8	-17.0	1.4	3.8	-3.1	0.6	15.7
15. Forestry revenues	1.6	1.3	8.1	1.0	34.4	59.8	9.1	7.2	19.0	-139.5	53.4
16. Crown oil revenues	32.7	7.0	48.7	39.9	368.7	494.7	56.7	-60.4	-1,104.8	116.8	553.8
17. Freehold oil revenues	1.8	0.4	2.6	2.2	19.8	26.1	0.9	-5.6	-56.1	7.8	27.7
18. Crown gas revenues	23.9	5.1	35.6	29.1	269.3	361.3	43.1	22.7	-783.7	-6.4	406.1
19. Freehold gas revenues	0.8	0.2	1.2	0.9	8.7	10.9	1.4	1.1	-28.8	3.6	13.2
20. Sales of Crown leases	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21. Other oil and gas revenues	1.3	0.3	2.0	1.6	15.0	20.2	2.4	-1.0	-44.0	2.2	22.6
22. Mineral revenues	-16.6	1.6	5.9	0.2	36.7	8.1	-3.3	-32.7	18.0	-17.5	24.1
23. Water power rentals	-17.0	0.6	3.4	2.0	-13.6	21.3	-3.7	3.2	9.3	-5.5	-28.4
24. Insurance premium taxes	3.4	0.5	2.8	1.5	-3.9	-4.0	2.2	1.3	-4.3	0.5	6.5
25. Payroll taxes	12.4	2.7	1.0	11.1	26.8	-56.2	5.4	11.0	-8.8	-14.5	68.5
26. Property/school taxes	32.0	6.5	37.5	31.1	128.7	-80.4	3.6	-5.5	-115.1	-38.4	239.4
27. Lottery revenues	2.8	0.4	0.2	2.4	6.8	-10.5	0.5	0.2	-1.1	-3.4	14.8
28. Miscellaneous provincial taxes	24.5	5.2	28.6	22.8	94.0	-31.3	12.4	-9.3	-123.1	-23.7	187.5
29. Shared tax on undist. inc.	0.1	0.0	0.1	0.1	-2.0	0.8	0.2	0.2	0.1	0.3	-1.4
30. Shared oil export charge	5.3	1.1	7.7	6.5	59.6	80.0	9.5	-148.5	-46.8	25.5	89.9
B. Total entitlements	431.0	103.2	512.9	414.9	2306.2	350.0	392.1	-94.3	-3651.3	-764.6	0.0
C. Equalization payments ^c	431.0	103.2	512.9	414.9	2306.2	0.0	392.1	0.0	0.0	0.0	4160.2
D. Equalization per capita ^d	757.5	842.8	604.7	596.3	359.2	0.0	381.6	0.0	0.0	0.0	171.6

^a Data from Department of Finance (1982a, 4).

^b These figures are the ratios of the total equalization entitlements in the previous column to the revenues to be equalized, given by the last column in Table 4.2. Note that the entry for revenue source 20 is indeterminate.

^c The negative entitlements in row B as well as the entitlement for Ontario are set equal to zero to get the equalization payments in row C.

^d These figures come from those in row C divided by the population data given in Ibid., 6. Note that these figures refer to dollars, not millions of dollars.

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of total equalization flows. But this comparison is somewhat misleading, since it is not standardized by the provinces' populations. Row D of Table 4.3 presents equalization payments in terms of dollars per capita. Quebec received \$359 per person, while equalization payments to Newfoundland and Prince Edward Island amounted to \$758 and \$843 per person, respectively.

Saskatchewan's position merits some comment. Its overall entitlement was negative by some \$94 million. Hence, it fell in the category of a 'have' province and received no equalization. However, its status of a 'rich' province for purposes of the formula for 1981-82 related to the introduction in this fiscal year of revenue source 30 (the shared oil export charge). With 70 per cent of the tax base for this category (Table 4.1), generating a fiscal excess of 66.01 per cent (Table 4.2), Saskatchewan received a negative equalization entitlement of just under \$150 million (Table 4.3). In the absence of this new revenue source, Saskatchewan would have been a recipient province—the position it normally held.

The second-last column of figures in Table 4.3 focuses on the aggregate entitlements by revenue source for the six 'have-not' or recipient provinces. The column sum of these figures also equals total equalization payments. Note that the largest contribution to total equalization arose from category 1, personal income taxes—over \$1 billion. However, the *sum* of the oil and gas categories was even larger than this. It is intriguing to note that not all revenue categories led to increases in equalization. Indeed, four entries in this second-last column have negative signs. Consider revenue categories 4 and 11—revenues from tobacco taxes and sales of beer, respectively. The tax bases for these categories were the volumes of tobacco and beer sold per capita. On average, the six 'have-not' provinces had per capita tax bases for these products that *exceeded* the national average levels; that is, on average they were 'rich' provinces for these categories. Hence, their aggregate entitlements were negative, and, overall, equalization payments *fell* as a result.

The same result followed with respect to revenue source 23, water power rentals. The equalization-receiving provinces of Newfoundland, Quebec, and Manitoba all had fiscal excesses in this category (Table 4.2) and, therefore, negative entitlements. Thus if water power revenues had been omitted from the program, *overall* equalization payments would have increased, although the payments

to some provinces would have fallen. Complicated interactions of this sort are bound to arise in the context of any approach to equalization that calculates entitlements over numerous revenue categories, and they are no less characteristic of the RFPS system than they were of the RNAS scheme. The point will be discussed in detail later, but it should be noted here that the definition under both schemes of the tax base for water power rentals—kilowatts of power produced in the province—has generated substantial controversy because of its effect on Newfoundland's equalization entitlements.

Equalization payments per dollar of revenues

The number of cents of equalization that arose in 1981-82 from each dollar of revenue eligible for equalization is given for each revenue category in the last column of Table 4.3. These figures were derived by dividing equalization flows for the receiving provinces (the 'totals' column of Table 4.3) by the revenues to be equalized (the last column of Table 4.2). Even though personal income taxes accounted for the largest single equalization flow, they generated only 7.5 cents in equalization for each dollar of personal income tax revenues that entered the formula, while business income revenues yielded 11.1 cents. This difference implies that the equalization-receiving provinces as a group had proportionally less of the aggregate tax base for business income revenues than they did of the aggregate base for personal income taxes. Of particular interest are the figures for the energy revenues, which range between 37 cents per dollar equalized for freehold oil revenues (source 17) and 40 cents for freehold gas and shared oil export revenues (sources 19 and 30, respectively). Thus, even though only one-half of the energy revenue was eligible to enter the formula, Ottawa's cost in terms of equalization expenditures was much higher for each dollar of provincial energy revenue collected than it was for each dollar from more traditional sources such as sales taxes, personal income taxes, and even corporate taxes, which are the key component of business income revenues.

It is worthwhile delving somewhat further into the workings of the equalization program with respect to revenue categories 19 and 30. From Table 4.1 it is apparent that *none* of the six recipient provinces had a significant tax base for these categories. Hence, they were eligible to receive their population shares of any revenues to be

Equalization payments

equalized (i.e., their fiscal deficiencies were identical to their population shares). The sum of the population shares of these six provinces was 40 per cent (row A of Table 4.2), which, not surprisingly, was exactly the percentage of each dollar equalized for categories 19 and 30 that ended up as an equalization flow. *Thus, payments arising from these sources were in effect 'demogrants' or per capita payments.*

Ontario too was without a significant tax base in any of the nonrenewable energy categories. Had the province been eligible to receive equalization payments, the cost per dollar of nonrenewable energy resource revenues equalized would have jumped to 75.5 cents (i.e., the 40 per cent population share of the other six recipient provinces plus Ontario's population share, 35.5 per cent). Small wonder, then, that Ottawa revoked Ontario's right to be a recipient province.

*The resource ceiling*⁶

Under a provision of the 1977 Fiscal Arrangements Act, revenues arising from resources—renewable as well as nonrenewable—could account for no more than one-third of total equalization payments. This provision was referred to as the 'resource cap' or the 'resource ceiling'. It applied to revenue categories 15 through 23 and 30.

While there was no unique way of deciding just what proportion of total RNAS equalization flows were attributable to the resource categories, the manner in which the resource cap provision was implemented did have some intuitive appeal. The equalization entitlements for the seven 'traditional' recipient provinces (including Saskatchewan, a recipient province when the provision was introduced) for revenue sources 15 through 23 and 30 were aggregated. This sum was expressed as a percentage of total equalization. If the resulting ratio were less than one-third, nothing would change. If it exceeded one-third, then the revenues eligible for equalization for these categories would be scaled back *proportionately* until the ratio fell to one-third. The ratio for fiscal year 1981-82 was considerably below one-third, so the resource cap was not binding. However, it was close to being binding in some previous years, and indeed it was binding in some of the preliminary estimates of equalization flows for these years. Some observers argue that

resource category 20 (revenues from sales of crown leases) was phased out of the program partly in order to ensure that the resource cap would not become a constraint on the program.

There were several anomalies associated with the manner in which the ceiling provision was applied. For example, even though Saskatchewan had become a 'have' province, it was still included in the calculation for purposes of assessing whether the ceiling was binding. And since Saskatchewan's entitlements under the resource categories were negative (see Table 4.3), its inclusion in the calculations meant that a greater amount of resource revenues could enter the formula before the ceiling became binding. A second potential problem was the following. Suppose that in a given year the ceiling had been exactly binding. Suppose further that Alberta had *reduced*, say, its corporate tax rate, thereby reducing the revenues eligible for equalization for revenue category 2. This in turn would have reduced the equalization flow from business income tax and thus reduced total equalization. Therefore it would have been necessary to scale back resource revenues to satisfy the ceiling. Thus equalization would have been reduced on two counts. The opposite result would have followed from an increase in personal income tax revenues in a situation in which the ceiling was binding overall. Equalization would have gone up, and for each dollar that it increased it would have been possible to add 50 cents of equalization flows from the resource categories. In this case, equalization would have gone up on two counts.

Of course, all of this is rather academic as far as fiscal 1981-82 is concerned, since on the basis of current estimates the resource ceiling was not binding in that year. It is also academic in the sense that the new RFPS formula does not include a resource cap. However, the RFPS formula does contain a provision whereby equalization in total cannot exceed the growth of GNP, so clearly there is still a determination to ensure that the program does not mushroom.

This completes our brief overview of the workings of the RNAS equalization formula for 1981-82. However, before we proceed to the analysis of the RNAS version of equalization, it is important to recognize that there is an alternative to the description of the equalization procedure given in this section.

AN ALTERNATIVE VIEW OF EQUALIZATION: THE NATIONAL AVERAGE YIELD APPROACH

Over the years, the formulation of the RNAS equalization program dealt with in the previous section gradually became the generally accepted way of describing the program. For convenience, I refer to this as the 'shares' interpretation to the RNAS, based as it is on a comparison of population and tax-base shares. However, in the early stages of the RNAS approach the emphasis was on what might be called the 'national average yield' interpretation. To see this, consider the following quote from the 1966 address of Finance Minister Mitchell Sharp to the Federal-Provincial Tax-Structure Committee, in which he introduced the new program to Canadians:

The formula being proposed...would provide that any province in which average provincial tax rates (not its own tax rate) would yield less revenue per capita than the yield in Canada as a whole would be entitled to an equalization payment. The payments would be arrived at in this way. We would determine what it is that the provinces generally tax—in technical terms the tax base for each revenue source—and the average level of the rates or levies which the provinces generally impose. Then we would apply this average tax level to the [uniformly defined] tax base in each province...to find out whether the per capita yield in that province is below the national average. If the total yield of all provincial revenues, calculated in this way, were to yield less than the national average in any province the Federal Government would make up the difference in equalization payments. (Sharp 1966, 16)⁷

While this statement is reasonably clear, it is useful to restate it in more formal terms. For each of the 30 revenue sources, a given province's equalization entitlement in per capita terms can be expressed as follows:⁸

$$\begin{array}{l} \text{Equalization} \\ \text{per capita} \\ \text{for source } j \end{array} = \begin{array}{l} \text{national average} \\ \text{tax rate for} \\ \text{source } j \end{array} \left(\begin{array}{l} \text{national average} \\ \text{tax base per} \\ \text{capita for source } j \end{array} - \begin{array}{l} \text{province } i\text{'s tax} \\ \text{base per capita} \\ \text{for source } j \end{array} \right) \quad (4.2)$$

Under this formulation, a poor province is one for which the per capita national average tax base for the revenue source in question

exceeds the province's own per capita tax base. This differential can also be referred to as the fiscal deficiency. Likewise, a rich province will have a fiscal excess; that is, its own per capita tax base will be larger than the per capita national average tax base, so that the bracketed term in equation 4.2 will be negative.

To make the formulation even more clear, it is useful to expand equation 4.2 (where the equation would apply for each revenue source *j*):

$$\begin{array}{l} \text{Equalization} \\ \text{per} \\ \text{capita} \end{array} = \left(\begin{array}{l} \text{national} \\ \text{average} \\ \text{tax rate} \end{array} \times \begin{array}{l} \text{national} \\ \text{average} \\ \text{per capita} \\ \text{tax base} \end{array} \right) - \left(\begin{array}{l} \text{national} \\ \text{average} \\ \text{tax rate} \end{array} \times \begin{array}{l} \text{province's} \\ \text{per capita} \\ \text{tax base} \end{array} \right). \quad (4.3)$$

In turn, this can be interpreted as

$$\begin{array}{l} \text{Equalization} \\ \text{per} \\ \text{capita} \end{array} = \begin{array}{l} \text{Per capita revenues} \\ \text{obtained by applying} \\ \text{national average tax} \\ \text{rate to national} \\ \text{average tax base} \end{array} - \begin{array}{l} \text{Per capita revenues} \\ \text{obtained by applying} \\ \text{national average tax} \\ \text{rate to the province's} \\ \text{own tax base} . \end{array} \quad (4.4)$$

Thus, a province is entitled to equalization if the national average tax rate yields more revenue per capita when applied to the national average tax base than it does when applied to the province's own tax base. As in the previous formulation, this calculation is done for each province and each revenue source. The resulting equalization entitlements are aggregated and the overall sum, if positive, represents the per capita equalization. If the resulting aggregate is negative, the province is, overall, a 'rich' province and the equalization payment is set to zero.

It is critical to note that these two formulations (equations 4.1 and 4.2) are not merely similar; *they are identical*. The formal proof of this proposition is relegated to a note.⁹

One could restate the entire RNAS calculation procedure in terms of the 'national average yield' formulation, but since it and the 'shares' formulation yield identical results little would be accomplished. The 'national average yield' alternative is valuable principally as a tool for interpreting the RFPS equalization program, and indeed most of the analysis of the RFPS program will be conducted in terms of this approach.

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It is useful to compare the intuitive underpinnings of these alternative approaches. Under the 'shares' approach (and assuming that the provinces have identical tax rates), each province is guaranteed a level of total revenue from each revenue source (its own revenue plus equalization) equal to its share of the population times total provincial revenues. Under the 'national average yield' approach (and again assuming that provinces have identical tax rates), for each revenue source a province is guaranteed total revenues per capita equal to what it would get from applying national average tax rates to the national average base. Thus, at this intuitive level it is readily apparent that the approaches are identical. Note that if a 'have-not' province has a tax rate for a given revenue source that is higher than the all-province average it will receive an amount of total revenue (own-source revenue plus equalization) that is *larger* than the national average. And vice versa if the province has a tax rate lower than the average.

EQUALIZATION AND PROVINCIAL REVENUES

Equalization as a percentage of own-source revenues

How well did the RNAS equalization program work? In particular, to what extent did the program achieve the declared goal of equalization—namely the provision of reasonably comparable levels of public services across provinces without resort to unduly high provincial tax rates? Since, as noted above, there are no generally accepted quantitative measures of the terms of this goal, the following analysis must be somewhat subjective. I shall begin by focusing on data for one year, leaving until the next section the task of addressing the issue in a broader context.

Row 1 of Table 4.4 expresses equalization payments as percentages of provincial own-source revenues in fiscal year 1980-81.¹⁰ Own-source revenues exclude both the equalization payments themselves and other federal transfers, such as the Canada Assistance Plan flows and those associated with the established programs (hospital insurance, medicare, and post-secondary education).

Although equalization payments in 1980-81 represented only 8.1 per cent of provincial own-source revenues, they were of overwhelm-

TABLE 4.4
Equalization and provincial finances, 1980-81

Row	NFLD	PEI	NS	NB	QUE	ONT	MAN	SASK	ALTA	BC	Total
1. Equalization as a percentage of own-source revenues ^a	52.4	65.1	51.0	48.7	16.5	0.0	26.1	1.9	0.0	0.0	8.1
2. Own-source revenues (\$ per capita) ^b	1,228	1,090	1,026	1,092	1,648	1,455	1,276	2,121	3,900	1,765	1,749
3. Own-source revenues plus federal transfers other than equalization (\$ per capita) ^c	1,871	1,745	1,653	1,692	2,272	1,973	1,836	2,631	4,422	2,335	2,308
4. Gross provincial revenues (row 3 plus equalization) (\$ per capita)	2,514	2,445	2,176	2,224	2,543	1,973	2,169	2,672	4,422	2,335	2,449

^a Equalization data adapted from MacEachen (1981, Table V-1). Own-source revenues calculated from Table II-4 of the same document.

^b Population figures from Department of Finance (1982a, 15).

^c Same tables as in ^a above.

Equalization payments

ing importance to the financial well-being of several provinces. For the Atlantic Provinces as a whole, for example, they equalled more than 50 per cent of own-source revenues, ranging from 48.7 per cent for New Brunswick to 65.1 per cent for Prince Edward Island. Although Quebec received approximately one-half of the dollar value of equalization payments, these flows were equal to less than 20 per cent of the province's own-source revenues.¹¹

Equalization in relation to other federal transfers

Just as equalization payments were not a particularly large item in overall provincial finances in fiscal year 1980-81, neither were they a dominant element in overall federal transfers to provinces. The major transfers apart from equalization payments are the monies for the established programs and the payments under the Canada Assistance Plan. Equalization payments accounted for 20 per cent of total federal transfers in 1980-81.

Rows 2, 3, and 4 of Table 4.4 attempt to put into perspective the role of equalization in the overall finances of the provincial governments. Row 2 of Table 4.4 presents own-source revenues per capita. Not surprisingly, provincial revenue disparity is very apparent. The per capita own-source funds available to Alberta in 1980-81 were nearly four times those available to Prince Edward Island, Nova Scotia, and New Brunswick. Own-source revenues depend on more than simply how 'wealthy' a province is. For example, the fact that Quebec has access to greater per capita revenues than Ontario depends in large measure on the fact that *tax rates* are higher in Quebec. Even Alberta's \$3,900 per capita in 1980-81 does not fully reflect this province's access to revenues, since its tax rates on sources such as personal income are the lowest in Canada. Moreover, Alberta has no sales tax. The average yield in 1980-81 for sales taxes in the other provinces exceeded \$325 per capita, and Alberta's per capita sales tax base was larger than the national average base. Thus if Alberta had levied sales taxes at national average rates in 1980-81 its total per capita own-source revenues would have been more than \$325 higher. More important still, the figures in the table exclude the interest income of provincial governments. In 1980-81 Alberta had assets in the neighbourhood of \$10 billion in its Heritage Fund; a 10 per cent return on these assets would add another \$500 per capita to the

Alberta data. More detail on variations in tax rates across provinces, or measures of 'tax effort', will be presented in connection with Table 4.7 below.

Row 3 adds all federal transfers apart from equalization payments to own-province revenues. These transfers were pretty much equal across provinces—somewhere in the \$500-\$650 per capita range. I argued earlier that some portion of these other transfers may be viewed as equalization payments of a sort. After all, an alternative to providing provinces with revenues sufficient to discharge their spending responsibilities is to have the federal government provide expenditure-specific transfers. Since the established programs transfers are effectively on an equal-per-capita basis, they do embody an element of implicit equalization. However, my focus for the present is on the formal equalization program. Row 4 of Table 4.4 adds equalization to the numbers in row 3 to arrive at the total or gross provincial revenues for the provinces. The figures for British Columbia, Alberta, and Ontario do not change from row 3 to row 4: Alberta and British Columbia were the only 'have' provinces in terms of the equalization program in 1980-81, and Ontario was excluded from equalization by the 'personal income override' provision referred to earlier.

What do the overall revenues in row 4 tell us about the performance of the RNAS equalization program? *In terms of ensuring that the 'have-not' provinces have access to revenues comparable to the revenues of the 'have' provinces the program may well be judged a success*, particularly if Alberta is excluded from the calculations. Excluding Alberta, the all-province per capita average revenue in 1980-81 was \$2,256. Four of the 'have-not' provinces (Newfoundland, Prince Edward Island, Quebec, and Saskatchewan) had per capita revenues in excess of this amount and the remaining three were within \$100 of the average.

A second observation relates to Ontario. *It has by far the lowest dollar-per-capita figure in row 4, nearly \$500 below the national average*. The next section will show that Ontario's shortfall cannot be attributed to a lower tax effort on the part of this province: indeed, as we shall see, its tax effort is exactly at the national average level. Therefore, while Ontario may be viewed as a rich province for some purposes, *it is not a rich province when it comes to access to provincial revenues*. This is, of course, why it qualified for equalization payments

for each and every year from 1977 to 1982. And this is also why the arbitrary exclusion of Ontario (by means of the personal income override) came to be viewed as a serious defect of the RNAS equalization program.

Finally, it is obvious from the results in row 4 that Alberta's revenue position within the federation is nothing short of staggering. Even with the National Energy Program in place, Alberta's revenues will continue to escalate as domestic energy prices rise. Not surprisingly, this situation focuses attention on the role that energy revenues play in the equalization formula—an issue that will be central to much of the remainder of the monograph.

EQUALIZATION AND HORIZONTAL FISCAL BALANCE: THE LAST DECADE

Table 4.5 presents data on the provincial shares of various definitions of comprehensive tax revenues for three selected years over the last decade. Table 4.6 converts these figures into indices pegged to an all-province average of 100. Essentially, the index for a province whose share of a tax base exceeds its population share is greater than 100 and vice versa. As a link between the two tables, the last row of Table 4.5 reproduces the 1981-82 population shares from Table 4.2. Since these shares change rather slowly, the 1981-82 figures will also serve as rough estimates for fiscal years 1972-73 and 1976-77.

The methodology underlying these tables is rather well accepted in equalization circles and has an intuitive appeal. Basically, the measures used here focus on what is known as 'fiscal capacity'. A province's fiscal capacity is its *potential* revenue, which it may or may not realize in full. However, the methodology may be sufficiently unfamiliar to some readers to make further elaboration in order. Consider the first tax base in Table 4.5, namely own-source revenues. Tax bases are defined on a common basis for each province for each revenue category. To each province's tax base for each revenue category is applied the all-province average tax rate (i.e., not the province's *own* tax rate). The revenues from all categories are then aggregated for each province to give total own-source revenues available to a given province were it to apply national average tax rates to its shares of the uniform tax bases. From these data one can work backwards, as it were, to derive each province's comprehensive

TABLE 4.5

Shares of comprehensive tax base, selected fiscal years (per cent)

Measure of revenue base	NFLD	PEI	NS	NB	QUE	ONT	MAN	SASK	ALTA	BC	RFPS ^a
Own-source revenues ^b											
1972-73	1.50	0.31	2.63	2.08	23.53	39.68	4.10	3.58	10.18	12.42	83.30
1976-77	1.46	0.29	2.38	1.98	22.21	35.55	3.78	4.26	16.08	12.01	77.81
1981-82	1.38	0.28	2.29	1.89	20.60	33.23	3.33	4.47	20.01	12.52	74.15
Own-source revenues plus equalization											
1972-73	2.06	0.43	3.19	2.55	25.12	37.25	4.24	3.95	9.56	11.66	82.21
1976-77	2.06	0.44	3.12	2.55	24.03	33.38	4.01	4.03	15.10	11.28	76.73
1981-82	1.95	0.42	2.93	2.41	22.86	31.10	3.71	4.18	18.73	11.72	73.57
Own-source revenues plus all transfer payments											
1972-73	2.31	0.53	3.31	2.72	26.57	36.16	4.32	3.92	9.21	10.95	81.93
1976-77	2.24	0.54	3.28	2.75	25.27	32.98	4.14	4.04	13.70	11.07	77.49
1981-82	2.11	0.49	3.11	2.64	23.90	31.03	3.80	4.23	17.14	11.55	74.52
Own-source revenues less natural resources											
1972-73	1.48	0.32	2.74	2.13	24.20	41.18	4.23	3.49	8.45	11.78	84.88
1976-77	1.51	0.32	2.61	2.15	24.19	38.82	4.10	4.07	10.23	12.00	83.18
1981-82	1.45	0.31	2.57	2.09	22.98	37.12	3.67	4.10	12.85	12.86	80.74
Population share											
1981-82	2.35	0.51	3.50	2.87	26.49	35.54	4.24	3.99	9.20	11.32	81.58

^a Representative five-province standard—Quebec, Ontario, Manitoba, Saskatchewan, and British Columbia.

^b Own-source revenues and equalization payments are determined as the basis of the *new* equalization formula as far as tax bases are concerned. What this means is that all renewable energy resource revenues and all property taxes enter the equalization formula. The equalization standard, however, is the national average level and not the five-province average that characterizes the present formula.

SOURCE: Ontario (1982, Appendix Table 3).

TABLE 4.6
Indices of tax base per capita, selected fiscal years (national average = 100)

Measure of revenue base	NFLD	PEI	NS	NB	QUE	ONT	MAN	SASK	ALTA	BC	RFPS ^a
Own-source revenues ^b											
1972-73	62	59	72	71	85	110	90	85	134	120	101
1976-77	60	57	66	67	82	99	85	106	201	112	94
1981-82	59	55	66	66	78	94	79	112	217	111	91
Own-source revenues plus equalization											
1972-73	85	84	87	87	90	104	93	94	125	113	99
1976-77	85	85	86	86	88	93	90	100	188	105	93
1981-82	83	83	84	84	86	88	88	105	203	104	90
Own-source revenues plus all transfer payments											
1972-73	95	102	91	92	95	101	95	93	121	106	99
1976-77	92	104	91	93	93	91	93	100	171	103	94
1981-82	90	96	89	92	90	87	90	106	186	102	91
Own-source revenues less natural resources											
1972-73	61	62	75	72	87	115	93	82	111	114	103
1976-77	62	62	72	73	89	108	92	101	128	112	101
1981-82	62	62	73	73	87	104	87	103	139	114	99

^a Representative five-province standard—Quebec, Ontario, Manitoba, Saskatchewan, and British Columbia.

^b See note *b* of Table 4.5.

SOURCE: Ontario (1982, Appendix Table 3).

tax base for own-source revenues. These tax bases appear in Table 4.5. The provincial indices for these tax bases, given in Table 4.6, are derived by setting the all-province average tax base at 100 and multiplying by 100 the ratio of each province's per capita level to the national average per capita level.¹² Note that if a province sets tax rates in excess of the national average tax rates, its *actual* revenues exceed its 'fiscal capacity' revenues, as defined here. This difference allows one to calculate indices of 'tax effort', which will be highlighted in Table 4.7.

The calculation procedure is similar for the other revenue bases in Tables 4.5 and 4.6. For example, consider the second tax base, own-source revenues plus equalization. One adds to each province's revenues at national average tax rates the amounts of equalization received. This is expressed as a percentage of the sum of total revenues for all provinces (at national average tax rates) plus equalization. In terms of note 12 (*q.v.*), this redefines the variable ($\%P - \%B$). Subtracting this from $\%P$ yields the province's share of this comprehensive tax base (Table 4.5), and comparing it with the province's population generates the index of fiscal capacity (Table 4.6).

In order to draw meaningful conclusions from the temporal data in Tables 4.5 and 4.6, one must have consistent definitions over time for such things as own-source tax revenues and the equalization program. Accordingly, the tables assume that own-source tax revenues are defined to include: (a) the 30 revenue sources listed in Tables 4.1 and 4.2; (b) the revenue sources introduced in the 1982 equalization formula (essentially this amounts to including *all* property taxes as well as miscellaneous local revenues); and (c) the nonrenewable resource revenues in their entirety (not just 50 per cent as in the RNAS equalization formula). While virtually any consistent definition would suffice, the one underlying these tables is particularly useful since it is identical with the definition of revenues for the present equalization formula and, therefore, will prove valuable for the analysis of that formula later in the study.

Now to a brief analysis of the tables. Alberta's share of own-source revenues rose dramatically between 1972-73 and 1981-82—from 10.18 per cent to 20.01 per cent (Table 4.5). Its index of fiscal capacity rose from 134 in 1972-73 to 217 in 1981-82. Naturally, the driving force behind these increases was Alberta's abundance of energy-

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related revenues. *But Alberta's share of nonenergy revenues also increased dramatically.* The province's share of the base for 'own-source revenues less natural resources' rose from 8.45 per cent in 1972-73 to 10.23 per cent in 1976-77 and to 12.85 per cent in 1981-82. Alberta's fiscal capacity index for this revenue base went from 111 in 1972-73 to 139 in 1981-82. In other words, Alberta's fiscal capacity excess is *not limited* to natural resource revenues *per se*, although certainly the fact that its fiscal capacity for other revenues is so much above the national average level has a lot to do with the resource boom. For example, while corporation income tax revenue is not classified as resource revenue, much of Alberta's corporate revenue is resource related.

Corresponding to the improvement in Alberta's relative position, and in that of British Columbia and Saskatchewan as well, was a relative decline for the remainder of the provinces. Thus, Ontario's own-source fiscal capacity index deteriorated from 110 in 1972-73 to 94 in 1981-82. This deterioration is apparent even in the nonenergy component of own-source revenues: in 1981-82 Ontario was just above the national average with a fiscal capacity index of 104, compared with an index of 115 in 1972-73.¹³

The role of equalization in ameliorating fiscal capacity imbalance

The second and third sections of Tables 4.5 and 4.6 indicate the degree to which equalization and federal transfers generally redressed the disparities in provincial fiscal capacities. The following points merit attention.

— Equalization brought up the fiscal capacities of the poorer provinces substantially. Nevertheless, their position deteriorated somewhat over the decade relative to the national average. Obviously the impact of Alberta's rising wealth on the national average had a great deal to do with this result.

— Although the poor provinces lost ground relative to the national average, they *gained substantially relative to Ontario*. Thus in 1972-73 Ontario's fiscal capacity index for all revenue sources was 101, which was *higher* than the index of any 'have-not' province except for Prince Edward Island. By 1981-82 Ontario's index had fallen to 87, which was *lower* than that of any other province. This shift highlights

one of the concerns that emerged during the last renegotiation of equalization arrangements, namely *how to deal with the contradiction posed by the deterioration of Ontario's relative fiscal position and its arbitrary exclusion from receiving equalization payments*.

— As was said earlier, the RFPS equalization program is designed to bring all provinces' revenues up to a so-called 'representative five-province standard' defined in terms of the revenues of five 'representative' provinces, namely Ontario, British Columbia, Manitoba, Saskatchewan, and Quebec. The richest province, Alberta, is excluded and so are the four poorest provinces. The last columns of Tables 4.5 and 4.6 present data relating to the RFPS. These data will be of value in evaluating the new equalization program. However, for present purposes it is sufficient to note that the composite fiscal capacity index for these five provinces for total revenues fell from 99 in 1972-73 to 91 in 1981-82.

In summary, then, Table 4.4 shows that equalization has indeed played a very significant role in reducing interprovincial disparities in fiscal capacity. Tables 4.5 and 4.6 confirm this result over a longer time horizon but also indicate that over time the level to which provincial revenues are equalized is falling relative to the national average level of fiscal capacity.

Indices of tax effort

Table 4.7 presents data on tax effort for the same four measures of the comprehensive revenue base. The indices of tax effort are obtained by comparing the revenues that the provinces *actually collect* with the revenues that the provinces *would collect* if they applied national average tax rates. Naturally, provinces with tax rates above the national average rates have indices of tax effort greater than 100 and vice versa. The results for own-source revenues are pretty much in line with what is commonly known, namely that Quebec has a relatively high index of tax effort (e.g., 121 for 1981-82) while Alberta has a relatively low tax effort (79). If one looks only at the nonresource component of own-source revenues, the results are even more striking: Alberta's tax effort in 1981-82 was roughly one-half of that of Quebec. For all four definitions in Table 4.7, Ontario's tax effort for 1981-82 was at or near the national average level.

TABLE 4.7

Indices of relative tax effort, selected fiscal years (national average = 100)

Measure of revenue base	NFLD	PEI	NS	NB	QUE	ONT	MAN	SASK	ALTA	BC	RFPS ^a
Own-source revenues ^b											
1972-73	83	123	97	108	117	97	100	98	82	93	102
1976-77	99	100	93	93	120	96	103	99	78	105	105
1981-82	102	99	84	86	121	100	97	104	79	102	107
Own-source revenues plus equalization											
1972-73	88	115	97	106	115	97	100	99	82	93	102
1976-77	99	100	95	95	117	96	103	99	78	105	105
1981-82	101	99	89	90	118	100	97	104	79	102	106
Own-source revenues plus all transfer payments											
1972-73	91	110	98	105	111	98	100	99	85	94	102
1976-77	100	100	96	96	113	97	102	99	81	104	104
1981-82	101	99	91	92	115	100	98	104	80	101	105
Own-source revenues less natural resources											
1972-73	85	122	97	110	117	97	100	99	77	91	102
1976-77	103	100	93	93	121	96	103	97	63	104	105
1981-82	108	99	84	86	122	101	96	100	63	102	107

^a Representative five-province standard—Quebec, Ontario, Manitoba, Saskatchewan, and British Columbia.

^b See note *b* of Table 4.5.

SOURCE: Ontario (1982, Appendix Table 4).

The last point is particularly interesting. Tables 4.5 and 4.6 indicated that Ontario's fiscal capacity for total revenues for 1981-82 was the lowest in Canada. From Table 4.7, however, it is clear that this shortfall in Ontario's revenues was *not* the result of a low tax effort in this province. While it is true that Ontario's tax effort was less than that of Quebec and Newfoundland (for total revenues) it was higher than the tax effort of the remaining four provinces eligible for equalization.

Finally, it should be noted that for total revenues the combined tax effort for the five provinces that are included in the new RFPS was above the national average level in 1981-82, a circumstance that offsets to some extent the fact that the index of fiscal capacity (Table 4.6) for these same five provinces was below the national average.

The exercise of calculating indices of tax effort has long been associated with evaluating equalization programs. Indeed, in his seminal article relating to equalization payments, Musgrave (1961) suggests that tax effort ought to be built explicitly into the equalization formula. The last section of this chapter will briefly address this issue. However, the fact that these indices have frequently been calculated does not mean that they are free from conceptual difficulties. Suppose one were to take the position that Alberta's resource revenues really belong to the people of Alberta and that Alberta is, in effect, levying a 100 per cent (i.e., confiscatory) tax on its residents to acquire these revenues. Under this interpretation, the whole exercise in Table 4.7 becomes somewhat suspect.

It is, as well, important not to identify tax effort with tax burden. For one thing, taxes levied on corporations are probably ultimately passed forward to consumers or backward to factors of production; consequently, measures of tax effort with respect to corporate taxes are not the same as measures of tax burden. Likewise, provinces can run deficits or surpluses, which have implications for future tax liabilities, and these deficits or surpluses are not taken into account in Table 4.7.

Nonetheless, it is likely that increasing attention will be paid to that nebulous phrase 'reasonably comparable tax rates' now that it is enshrined in the equalization provision of the constitution. And it is also likely that the calculation of reasonably comparable tax rates will depend upon tax effort measures such as those presented in Table 4.7. Thus, conceptual problems notwithstanding, measures of tax effort

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will probably continue to be associated with the equalization program. Consequently, further effort should be invested in refining these measures, with a view to making them more generally acceptable.

EXPENDITURE INDICES

Table 4.8 rounds out the statistical evaluation of the RNAS equalization program by presenting indices of consolidated provincial/local expenditures for fiscal year 1977-78. Care must be taken not to misinterpret these figures. It cannot be presumed that a dollar of government expenditure in one province provides the same quantity or the same quality of public services as a dollar of expenditure in another province. Nevertheless, the indices of expenditure per capita are revealing. *The variation in expenditure levels per capita across provinces is much less than the variation in either fiscal capacity or in tax effort.* Thus the fiscal capacity indices for total revenues for 1976-77 in Table 4.6 range from 85 to 188, whereas the Table 4.8 range is from 82 to 118. The fact that Alberta's expenditure index is only 118 is quite interesting. Clearly it is not using its immense revenue potential to provide its citizens with similarly large amounts of public services—or at least it did not in fiscal year 1977-78. The Department of Finance paper, the source of these data, observes that the range is narrower for expenditures than for revenues presumably because of 'the pressure on each province to provide public service levels comparable to those provided in other provinces' (MacEachen 1981, Annex III, 46). And since the equalization philosophy, as distinct from the manner in which it is implemented, refers to public services rather than to revenue levels, there may therefore be some justification for not including 100 per cent of the energy revenues in the equalization formula.

We conclude our brief overview of the role of equalization in provincial finances by focusing on yet another concept—fiscal need.

FISCAL NEED AND CANADA'S EQUALIZATION SYSTEM

Douglas Clark, in a monograph written fifteen years ago but still remarkably pertinent to current equalization issues, defines fiscal need in this way:

TABLE 4.8
Indices of per capita expenditure effort (consolidated provincial/local expenditures, 1977-78)

NFLD	PEI	NS	NB	QUE	ONT	MAN	SASK	ALTA	BC	All provinces
88	96	86	82	108	94	99	103	118	100	100

SOURCE: MacEachen (1981, Table III.2).

The measure of fiscal need of a province is the amount, if any, by which the *cost* to that province of providing a given standard of public service exceeds the *revenues* which the province would derive from applying a given rate of taxation to its own base....Fiscal need therefore has two components—an *expenditure component* which may be referred to as 'expenditure needs' and a *revenue component* which may be referred to as 'revenue means'. (Clark 1969, 18)

Thus fiscal need can be expressed as follows:

Fiscal need = expenditure needs – revenue means.

(4.5)

Canada’s equalization formulas past and present have attempted to offset provincial revenue disparities by *equalizing with respect to revenue means*. However, *implicit* in the program is the assumption that expenditure needs *are identical* in per capita terms. That is, expenditure needs depend only on population. This assumption becomes readily apparent if equation 4.1 is expanded as follows:

Equalization payments to province i

=

total provincial revenues multiplied by province i’s share of total population

–

total provincial revenues multiplied by province i’s share of the national tax base.

(4.6)

In terms of the fiscal need formulation (equation 4.5), the first term after the equal sign in equation 4.6 corresponds to expenditure needs, the second term corresponds to revenue means, and equalization payments themselves correspond to fiscal need. Thus in the RNAS equalization formula, *a province’s expenditure needs are essentially set*

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equal to its population share of total provincial revenues; that is, expenditure needs are assumed to be identical in per capita terms across provinces. As total provincial revenues increase, expenditure needs are assumed to increase in parallel. In other words, the system is internally driven by total provincial revenues.

The obvious exception to this rule is the treatment of nonrenewable resource revenues, only 50 per cent of which entered the RNAS version of equalization over the 1977-82 period. One way of rationalizing this provision is to argue (a) that not all of these resource revenues were spent on the provision of public services (as a comparison of Alberta's indices for fiscal capacity and for expenditures makes abundantly clear) and (b) that even if they were spent in this manner, there is no reason why this should have increased proportionally the cost of providing the 'basic' level of public services in other provinces. To put the point more starkly, why should Nova Scotia's equalization payments have ballooned just because Alberta was enjoying a revenue bonanza? Did it cost Nova Scotia proportionately more to provide its public services because Alberta was suddenly richer? To put the point in this manner is to raise one of the most difficult conceptual problems associated with equalization. What is the appropriate level for equalization? Neither the equalization legislation nor the constitution can provide a precise answer to this important question, since there is no obvious way to convert 'reasonably comparable levels of public services' and 'reasonably comparable tax levels' into generally accepted, let alone theoretically meaningful, quantitative measures.

From a theoretical standpoint, it is not difficult to incorporate an *explicit* formulation of expenditure need into the current formula. One simply multiplies the first term of equation 4.6 by N_i/N_c , defined as the degree by which the expenditure needed in province i to produce a given bundle of services exceeds the national average expenditure need; that is, N_i/N_c would have the dimension of a 'pure' number and would equal 1.00 for a province with per capita expenditure needs equal to the national average, 2.00 for a province whose expenditure needs on a per capita basis were twice that of the all-province average, and so on. Although this concept has been incorporated into West Germany's system of equalization payments (see the appendix to Chapter 8), and although it was central to the derivation of the National Adjustments Grants recommended by the Rowell-Sirois

Commission, it would be a very difficult concept to implement empirically. First of all, one would have to define just what constitutes the 'basic' or 'reasonably comparable' level of public services. If this were accomplished, the next requirement would be to assess the costs of producing these services in various provinces. Clark lists some of the many factors that might go into an index of needs—age of population, density, education level, weather, unemployment rate, and so on (Clark 1969, 18-22). Most likely, there would have to be a need index for *each* expenditure category. However, this requirement would create its own problems, since equalization payments are given *unconditionally* to the provinces. Since the recipient provinces can spend equalization monies however they please, there can be no presumption that any two provinces would allocate these funds in similar ways across the various expenditure categories. These problems may not be insuperable, but it is likely that any attempt to introduce expenditure need into the equalization formula would dissolve in a welter of computational and conceptual difficulties. To put the matter somewhat differently, it would be much easier to introduce the concept of fiscal need into an equalization formula if the payments were *conditional* (i.e., expenditure-specific).¹⁴ Given that one of the hallmarks of our equalization program is that the transfers are unconditional, it is perhaps not too surprising that expenditure needs are not defined explicitly but rather are assumed implicitly to be identical across provinces in per capita terms.

In spite of these pitfalls, it appears rather clear that a fiscal need approach to equalization is superior *conceptually* to a fiscal capacity approach. In Chapter 9, I shall attempt to sketch the manner in which such a system might be devised by briefly describing the Australian equalization system, which *does* incorporate fiscal need.

INTRODUCING TAX EFFORT INTO THE EQUALIZATION FORMULA

In rounding out this overview of the RNAS equalization program, it is appropriate to return to the suggestion that tax effort be brought explicitly into the equalization formula. The rationale here is simply that if a province wants its equalization payments to rise it should be willing to increase its own tax rates, that is, it should 'earn' the

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increase in equalization. One obvious way of incorporating this notion would be to multiply overall equalization payments by some index of provincial tax effort. Unlike the RNAS and RFPS systems, this scheme would provide recipient provinces with a clear incentive to increase their tax effort.

It would appear that this approach would only be workable if all provinces had access to *similar* revenue sources. Indeed, Musgrave's article, where this notion first appeared, assumes that there was only *one* provincial source of revenue (Musgrave 1961). In the Canadian context, with some thirty-odd revenue sources and with the distribution of some of those resource revenues very concentrated geographically, the notion of incorporating tax effort into the formula loses some of its appeal. What is Ontario's tax effort with respect to natural gas revenues? Since it has no such revenues the question is really undefined. This relates to the point made earlier, namely that there are some considerable conceptual problems underlying the present approach to calculating indices of tax effort.

Nonetheless, it is important to recognize that the RNAS and RFPS versions of the formula *do* in fact incorporate some element of tax effort. This point will be elaborated upon in the next chapter. For now, however, it is sufficient to note that if Quebec (for example) increases its tax rate on a revenue source for which it has a fiscal deficiency, its level of equalization will indeed go up. This is because total revenues to be equalized will rise and Quebec will get a share of the increase.

Finally, in terms of the overall aim of the equalization program, namely to provide reasonably comparable levels of public services at reasonably comparable tax rates, it may be inconsistent to introduce a feature that would provide incentives for equalization-recipient provinces to have higher tax rates than nonrecipient provinces.

CONCLUSION

This chapter has presented an overview of the Representative National Average Standard approach to equalization, with an emphasis on the degree to which it fulfilled its intended goal of providing the poorer provinces with revenue sufficient to enable them to maintain levels of public services for their citizens more or less comparable to those enjoyed by the citizens of richer provinces.

Although it may be argued that the program did an admirable job, it is indisputable that serious problems had come to characterize the RNAS approach. Changes in the treatment of energy revenues and the manner in which Ontario was excluded from receiving equalization payments made the program increasingly arbitrary. The following chapter focuses more closely on certain details of the program and in the process discusses the problems that led, eventually, to the adoption of the RFPS approach in the spring of 1982.

NOTES

- 1 This was certainly true of the 1967 formula. However, later modifications to the formula with respect to the treatment of energy revenues were such that this national average level was no longer achieved. More on this later.
- 2 Much of the following description of the mechanics of the RNAS equalization program is applicable to the RFPS program as well.
- 3 The reasons why these resource revenues were given different treatment will be detailed later.
- 4 In formal terms, this can be expressed as follows:

$$E_{ij} = TR_j \left(\frac{P_i}{P_c} - \frac{B_{ij}}{B_{cj}} \right), \quad (4.1A)$$

where

E_{ij} = equalization entitlement for province i from revenue source j

TR_j = revenues to be equalized for revenue source j

$\frac{P_i}{P_c}$ = province i 's share of total population, where $P_c = \sum_{i=1}^{10} P_i$

$\frac{B_{ij}}{B_{cj}}$ = province i 's share of the tax base, where $B_{cj} = \sum_{i=1}^{10} B_{ij}$.

- 5 Although Ontario ended up with a positive entitlement, it was not allowed to receive equalization payments. More on this later.
- 6 The reader may wish to skip this section. It is a rather technical discussion of the resource ceiling to the RNAS equalization program. This ceiling was not binding for

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1981-82 and it was not incorporated into the legislation for the new equalization program.

- 7 Note that this outline of the proposed RNAS equalization program contained no mention of the 'shares' interpretation of the formula.
- 8 In formal notation, this 'national average yield' version of the equalization formula can be expressed as

$$\frac{E_{ij}}{P_i} = t_j \left(\frac{B_{cj}}{P_c} - \frac{B_{ij}}{P_i} \right), \quad (4.2A)$$

where

$$\frac{E_{ij}}{P_i} = \text{per capita equalization for province } i \text{ for revenue source } j$$

$$\frac{B_{cj}}{P_c} = \text{national average per capita base for revenue source } j$$

$$\frac{B_{ij}}{P_i} = \text{province } i\text{'s per capita base for revenue source } j$$

$$P_c = \text{sum of province's population, i.e., } P_c = \sum_{i=1}^{10} P_i$$

$$B_{cj} = \sum_{i=1}^{10} B_{ij}$$

$$t_j = \left(\sum_{i=1}^{10} TR_{ij} / B_{cj} \right),$$

where TR_{ij} represents a province's revenue from source j . Thus t_j equals total revenue for a given source divided by the total base; that is, TR_j / B_{cj} . In other words, t_j is the national average tax rate.

- 9 With the variables of 4.2A now defined, it is straightforward to demonstrate the formal equivalence of the two approaches. Using equation 4.2A, take P_i across the equal sign:

$$E_{ij} = \frac{P_i TR_j}{B_{cj}} \left(\frac{B_{cj}}{P_c} - \frac{B_{ij}}{P_i} \right) .$$

Now take P_i/B_{cj} into the brackets, yielding

$$E_{ij} = TR_j \left(\frac{P_i}{P_c} - \frac{B_{ij}}{B_{cj}} \right) ,$$

which is, of course, equation 4.1A from note 4, the 'shares' approach to the RNAS equalization program.

- 10 Note that the data in Table 4.4 refer to fiscal year 1980-81, whereas the data in the previous three tables relate to fiscal year 1981-82. For the purpose at hand, namely assessing the performance of the equalization program, this is not a problem, since most of the analysis focuses on comparisons across provinces and these are unlikely to alter much over the span of a year or two. If anything, the percentages in the first row are likely to be on the low side for more recent years. Equalization payments have been increasing at a healthy clip while provincial own-source revenues will probably reflect the depressed state of the economy. Some estimates for 1982-83 for the new equalization program appear later in the study.
- 11 Saskatchewan received a small equalization payment in 1980-81 but not, as noted above, in 1981-82. This change resulted in large part from the introduction of revenue source 30 in the latter fiscal year.
- 12 There is an alternative and equivalent, but much more efficient, way to determine tax base shares (Table 4.5), tax base indices (Table 4.6), and indices of tax effort (Table 4.7). This is the method actually underlying the calculation in these tables and it is outlined in the 1981 Ontario Budget. Total equalization *entitlements* (not *payments*) are derived from the following formula:

$$E = TR(\%P - \%B), \tag{4.3A}$$

where

E = total equalization entitlements

TR = total revenues of all provinces from revenue sources to be equalized

$\%P$ = province's share of population

$\%B$ = province's share of total weighted comprehensive tax base.

Under the representative tax system, equalization entitlements are the difference between the total arrived from applying the national average tax rate to national average tax bases and the total arrived from applying national average tax rates to the province's own tax bases. Hence, given the values for E , one can

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determine implicit fiscal capacity deficiencies and excesses by dividing total equalization entitlements (E) by total revenues to be equalized (TR):

$$\frac{E}{TR} = (\%P - \%B).$$

One can then determine a province's share of the total weighted comprehensive tax base by subtracting the province's fiscal capacity deficiency or excess from its share of the population; that is

$$\%B = \%P - (\%P - \%B).$$

This yields the Table 4.5 data. To calculate an index of relative tax bases per capita one simply expresses the base share for each province over the population share:

$$I = \left(\frac{\%B}{\%P} \right) \times 100.$$

These are the Table 4.6 indices.

Relative tax effort can be expressed as a province's *actual revenues* divided by the revenues that it would derive if it applied the national average provincial tax to its own revenue base. This, however, is equivalent to dividing a province's share of total revenues by its share of the total base; that is,

$$\frac{\%TR}{\%B}.$$

Thus, relative tax effort can be indexed to the national average as follows:

$$I = \left(\frac{\%TR}{\%B} \right) \times 100.$$

These are the Table 4.7 indices. This note is adopted from Ontario (1981, appendix).

- 13 It should be noted that with the recent decline in world energy prices the relative fiscal position of the western provinces has also declined. Indeed, as is noted in the postscript to Chapter 2, British Columbia has qualified for stabilization payments.
- 14 The American experience is relevant here. In the late 1960s, equalization grants in the U.S. were allocated according to the Hill-Burton formula:

$$F = 100 - 50 \frac{Y_i}{Y}, \quad (4.4A)$$

where

F = the percentage of the state's program costs paid by the federal government

Y_i = per capita income of the i^{th} state

Y = average per capita income in the U.S.

Under this formula, Washington paid one-half of the overall costs of the program but low-income states received more than one-half of their costs and vice versa. The Y_i/Y term is a measure of revenue means. With such a system of *conditional* equalization grants, it does become much easier to correct for expenditure needs, since the grants are *program specific*. Carter (1971, ch. 4) has suggested an appealing modification of the Hill-Burton formula that incorporates expenditure need:

$$F = 100 - 50 \frac{Y_i}{Y} \cdot \frac{N}{N_i},$$

where N/N_i reflects the per capita need differential across the various states. For example, if it costs twice as much to build one mile of highway through state i than it does on average for all the U.S., the N/N_i will assume a value of 1/2. Thus, for any given relative income level, states with a high 'need' ratio (i.e., a low value for N/N_i) will receive a greater proportion of program costs and vice versa.

5 RNAS equalization: evaluation

Chapter 4 focused on the operation of the RNAS equalization program in fiscal year 1981-82. Much of the analysis was directed toward assessing the degree to which the principles underlying the program were achieved. The present chapter is oriented in the opposite direction: its emphasis is on those characteristics of the program that came to be viewed as sources of difficulty. The discussion begins with an analysis of the program's sensitivity to specific changes in the economic or demographic environment. For example, what happens to equalization payments under the RNAS approach if a province changes its tax rates, if it loses population, or if inflation doubles? Next, the analysis focuses on what has come to be known as 'moral hazard'—in the case of equalization this refers to the ability of provinces to influence their own equalization flows. The three remaining topics are the most important and the most troublesome. These topics are the impact of energy revenues on the RNAS formula, the problems associated with the funding of the program, and Ontario's exclusion from eligibility for equalization payments. Conceptually, these issues are distinct. In practice, however, they are closely intertwined, since it was the presence of the energy revenues that led to the funding dilemma and to the exclusion of Ontario from receiving equalization payments.

The several issues highlighted in the present chapter provide a convenient shopping list, as it were, of the items that any alternative to the RNAS formula could be expected to address. Moreover, as will eventually become apparent, many of these problems continue to characterize the equalization program under the new RFPS formula.

Thus, much of the following analysis can, and later will, be applied to the evaluation of the RFPS approach.

THE RNAS FORMULA: A SENSITIVITY ANALYSIS¹

Changing tax rates

Suppose that Nova Scotia increases its tax rates. What happens to equalization payments under the RNAS formula? The answer is clear if one focuses on a combination of the formulation for equalization payments in equation 4.1 and Table 4.2, which lists fiscal capacity deficiencies and excesses. Assume that the tax rate increase in question is a 1 percentage point increase in general sales taxes (revenue category 3).² Obviously Nova Scotia's *own* revenues will increase by an amount equal to 1 per cent of its own tax base. Suppose that this increase in own revenue amounts to \$100 million. From equation 4.1, total provincial revenues from this source are now \$100 million greater and, under the assumption that tax bases and therefore fiscal deficiencies do not change, *all provinces with a fiscal deficiency for this revenue source* (i.e., all provinces with a positive entry in Table 4.2 for category 3) will receive an increase in equalization entitlements. Nova Scotia's fiscal deficiency is .74 per cent. Thus, its equalization will increase by \$740,000 (i.e., .74 per cent of \$100 million). For Quebec, with a fiscal deficiency of 4.59 per cent for general sales tax revenues, the equalization increase will be \$4.59 million. And so on.

In general, therefore, an increase in *any* province's tax rate will lead to an increase in equalization entitlements for *all* provinces that have fiscal deficiencies for this revenue source, and vice versa. A concrete example might be useful. In its 1981 budget, the government of Ontario increased its personal income tax rates from 44 per cent to 48 per cent. It was estimated that this increase would bring in additional revenue of \$450 million for fiscal year 1981-82. Given such an increase, Nova Scotia's equalization would increase by \$5.18 million, or \$450 million multiplied by its fiscal deficiency for personal income taxes of 1.15 per cent from Table 4.2. For Quebec, with a deficiency of 3.01 per cent, equalization would increase by \$13.55 million. As Table 4.2 indicates, the aggregate fiscal deficiency for the six equalization-receiving provinces was 7.52 per cent for this revenue source. Thus Ontario's personal income tax increase would cost

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Ottawa \$33.84 million in increased equalization. As noted above, this analysis has assumed that an increase in tax rates leaves the tax base unchanged. This assumption is probably not correct. For example, Ontario's recent removal of sales taxes on automobiles probably did increase the tax base during the tax-exempt period; conversely, an increase in sales taxes may decrease the tax base. These complications are ignored.

A change in tax bases

The effect on equalization payments of a change in a province's tax base is somewhat more complicated. It is important here to distinguish between the province that undergoes the tax-base change and the remaining provinces. Let us consider a particular case. Suppose that New Brunswick's tax base for retail sales increases while the tax bases for the remaining provinces remain constant. Given existing tax rates, sales tax revenues will go up in New Brunswick and, therefore, in Canada as a whole. Since total revenues to be equalized have increased and New Brunswick has a fiscal deficiency for this revenue source, New Brunswick will receive greater equalization flows. However, there is an offsetting effect. New Brunswick's share of the total tax base is now higher and therefore its fiscal deficiency is smaller. Thus New Brunswick's equalization from this source is reduced. Moreover, the latter effect will dominate the former. Indeed, if the increase in New Brunswick's sales tax base is large enough, it will become a 'have' province in relation to this revenue source and its equalization flows from the source will now be negative.

In general, therefore, if a province becomes richer in the sense that its tax bases increase relative to those of the other provinces, its equalization will fall. *This is precisely what one would want from an equalization program.* Overall, the province will likely have an increase in revenues, since the increase in *own* revenues arising from the increase in its tax base will normally dominate its equalization loss.³

For provinces *other* than the one in which the tax base increased, the results are straightforward. Equalization increases on two counts. First, total revenues to be equalized are higher. Second, all *other* provinces must experience a *fall* in their shares of the total tax base.

This increases their fiscal deficiencies and, therefore, their overall equalization flows.

Population changes

Equalization entitlements based on revenue categories for which some provinces have a zero tax base, such as energy, depend only on the population share. This is obvious from Table 4.2, where, for many of the energy categories, fiscal deficiencies are identical with population shares. Hence, out-migration from a province will lead to a proportionate decrease in its dollar value of equalization from these sources and vice versa.

The analysis is not as clearcut when the tax base is a function of population, as are most tax bases. Consider revenue category 3, general sales taxes. Suppose that the population share of a province falls by 1 percentage point and suppose further that the out-migrants consume as much in their new province as they consumed previously, so that the *all-province* tax base is unchanged. What happens to equalization in the population-losing province obviously depends on what happens to this province's share of the total tax base. If, as a result of the out-migration, the province's tax base also falls by 1 percentage point, then its fiscal deficiency under formulation 4.1 will remain unchanged and so will its equalization payments.⁴ If the out-migrants are from the upper income class and, therefore, have higher-than-average consumption levels, the province's tax base will fall by more than 1 percentage point and equalization will increase. The opposite will hold if the people leaving the province have lower-than-average consumption levels. In an intuitive sense, this is exactly what should be happening. Note that the province's *own* revenues will also fall, since it has lost the migrants' taxes. However, the focus here is only on equalization payments, not on total provincial revenues.

Inflation

If all prices and wages doubled overnight, as a first approximation equalization payments would also double. To see this, focus again on formulation 4.1. Nothing would happen to the population shares or the tax base; therefore, the fiscal deficiencies in Table 4.2 would still apply. However, total revenues would double. Given a constant tax

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rate on retail sales, for example, a doubling of the value of the tax base would double the value of revenues derived from retail sales. In turn, equalization payments would double.

In practice, such a doubling would not be likely to occur, since it is unlikely that tax revenues would rise exactly apace with inflation. Nonetheless, this is a reasonable first approximation of the impact of inflation on equalization flows.

MORAL HAZARD AND THE EQUALIZATION SYSTEM

'Moral hazard' is a relatively new term in the economist's vocabulary (see Grubel 1971, 99-106). It is adopted from the insurance field and describes a situation in which the insured person is in a position to influence his entitlement to compensation. As John Dales noted in his presidential address to the Canadian Economics Association:

Insurance is a much neglected subject in general economic literature, and there sometimes seems to be almost a conspiracy of silence on the moral hazard problem. It seems cynical to say, and people do not like to hear, that fire insurance leads to more fires, unemployment insurance leads to more unemployment, and that any expectation of compensation by victims of floods increases the number of flood victims. Rights to compensation touch closely the moral problem of the desirable limits of individual responsibility on the one hand and the extent to which we should seek to be our own brother's keeper, or his ward, on the other. (Dales 1975, 501-502)

It may be stretching the definition of moral hazard somewhat to apply the phrase to the equalization program. Yet the RNAS system allowed the provinces plenty of opportunity to manipulate the formula in order to increase their equalization entitlements. Moreover, adoption of the RFPS system has done little to diminish this opportunity.

Moral hazard with respect to the 30 revenue sources

The deficiency of both the RNAS and the RFPS formulas in this respect can best be understood if we refer once again to Table 4.2. Consider the column of fiscal deficiencies for Quebec. Suppose that

this province wishes to raise \$100 million in new tax revenues. Suppose further that it obtains the \$100 million from corporate taxes, for which it has a fiscal deficiency. Since total revenues entering the formula increase by this \$100 million, Quebec's entitlement will increase by \$5.87 million (its fiscal deficiency of 5.87 per cent multiplied by the \$100 million). However, if instead the province raises the \$100 million from water power rentals (revenue category 23), for which it has a fiscal excess, its entitlement will *fall* by \$12.47 million. Obviously, there is an incentive for provinces to levy taxes on revenue sources for which they have fiscal deficiencies rather than on sources for which they have fiscal excesses.

While equalization considerations must surely be taken into account in the taxation decisions of all 'have-not' provinces,⁵ this does not necessarily mean that they will carry the day. There are also factors that tend to harmonize tax rates across provinces. Nonetheless, a problem does exist. One of the proposals put forward later in this monograph is for a 'macro' equalization formula (i.e., one aggregate base rather than a myriad of smaller ones), which would eliminate this element of moral hazard.

Included versus excluded tax sources

The RNAS formula also encouraged distortions in provincial taxation policies by excluding some types of taxes from equalization while including others of a similar nature. Thus, property taxes levied for school purposes were included in the formula, but property taxes levied for municipal purposes were not. Hence, a province receiving equalization payments could increase its own equalization entitlements and those of other 'have-not' provinces by reducing its grants to local governments for school purposes and increasing its grants for municipal purposes. Property taxes levied for school purposes would increase (which would increase equalization entitlements), while those levied for municipal purposes would decrease (which would leave equalization unaffected, since these taxes would not enter the formula). Alternatively, Alberta or any other 'have' province could do the reverse, thereby decreasing equalization entitlements. Under the new RFPS approach to equalization, *all* property taxes enter the formula. One rationale for this change was the extension of equalization to cover revenues used for local purposes

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as well as those used for traditional provincial purposes, but the move was also intended to limit the provinces' ability to manipulate the formula for their own ends. However, problems of this sort will plague any equalization program based on representative tax sources, since there will always be some revenue sources that the formula does not take into account. Again, one solution to the problem would be the adoption of a macro-based equalization formula.

The Quebec liquor strike

One of the most flagrant examples of moral hazard with respect to the equalization program arose in connection with a 1979 strike by Quebec liquor board employees. Quebec's finance minister, Jacques Parizeau, stated publicly that the Quebec government would not suffer much revenue loss from the strike because lost taxes and profits would be made up by the equalization program. Parizeau may not have been correct in claiming that the loss would be entirely made up, but certainly a large portion of it was.⁶ This happened because for the duration of the strike, *Quebec's tax base for the liquor was reduced to zero*. Hence, the province became eligible for its population share (26.49 per cent, from row A of Table 4.2) of total provincial revenues from this source for the duration of the strike. Moreover, equalization payments for all the other 'have-not' provinces fell, since total revenues to be equalized were decreased by the amount that Quebec's revenues fell.

Such situations are clearly unacceptable. Provinces should not be able to influence their equalization flows by their own actions. In this case, the outcome was even more awkward. The costs of Quebec's liquor strike were translated not only into increased equalization flows to Quebec, but also into decreased flows to other 'have-not' provinces. One way to deal with situations of this type would be to impute a tax base equal to, say, last year's tax base to any province that incurred a public sector strike affecting one of its revenue sources. This solution would not require a change in the equalization formula itself, but only a change in the definitions of the tax bases. These definitions are generally contained in 'regulations' pursuant to the equalization legislation.

A situation much like the Quebec one arose a few years ago when Saskatchewan began to nationalize its potash industry. At that time,

revenue category 2 consisted only of corporate income taxes. The process of buying out the potash industry removed it from Saskatchewan's tax base for corporate profits, thereby decreasing Saskatchewan's share of the total corporate tax base and increasing its equalization entitlement. This loophole was partially plugged by the 1977 Fiscal Arrangements Act, which broadened the corporate profits revenue category to include profits of government-operated business enterprises. However, this measure did not go far enough. It is still possible for a government to consciously run an enterprise at a loss (to serve some social purpose) and in the process drive down its tax base (and increase its equalization entitlement) for this category. Again, the remedy in these cases would be to *impute* a tax base (on the basis of profit rates earned by similar operations in other provinces or in the private sector).

OTHER PROBLEMS ASSOCIATED WITH THE RNAS EQUALIZATION PROGRAM

Newfoundland and hydro

Among the perennial challenges that have faced both the old and the new equalization programs are those arising from the manner in which the tax bases are defined. And the most high-profile problem in this area concerns the definition of the tax base for water power rentals, revenue category 23. The specific source of difficulty is Churchill Falls. By virtue of a long-running contract, Quebec has preempted virtually all of the economic rent arising from the Churchill Falls hydro facility. Yet the tax base for water power rentals is defined as the number of kilowatt hours of electricity generated in each province, and under this definition all of the production from Churchill Falls is included in Newfoundland's tax base. Thus, not only does Newfoundland forgo the economic rent for this resource, but its equalization payments are reduced by \$17 million (see Table 4.3).

One can, of course, argue that the equalization formula should not be influenced by contracts between provinces. If kilowatt hours of electricity produced is the most appropriate definition for this revenue source, then it should be used regardless of the consequences that arise because of private contracts. Making an exception for Newfoundland would open the door to compromises in the formula

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wherever private contracts impinge on the degree to which provinces have access to certain tax bases. While I recognize this, my sympathies in this case lie with Newfoundland. Equalization is supposed to ensure that the provinces have access to national average tax revenues for each revenue base, and Newfoundland is discriminated against in respect of this revenue source. At a more general level, it is not at all clear that output is the appropriate definition for the tax base when it comes to resource revenues. The potential rents associated with a barrel of syncrude oil are far less than those associated with a barrel of conventional oil, so a base defined strictly in terms of barrels of oil produced is an inadequate measure of a province's access to revenues. As long as most of the oil and gas revenues are located in 'rich' provinces, this problem will not be as acute as it will become when oil revenues come on stream in 'poor' provinces. Consider Nova Scotia and off-shore natural gas. If a pure output measure is utilized as the tax base, Nova Scotia's loss in equalization entitlements under the RNAS system will likely be considerably larger than its revenues from the oil. This is so because the provincial revenue from a unit of output of off-shore oil is much lower than the revenue from a unit of output of conventional oil. What is needed, therefore, is a comprehensive measure of the tax base for these sectors that assesses correctly the revenue potential available from each category of oil. A uniform base defined on output simply will not do.

Not surprisingly, this general issue did surface during the negotiations leading to the 1982 arrangements. In particular, the issue attracted the attention of policy economists across the country and led to the development of a new literature relating to resource rents and their interaction with equalization. At an empirical level, the Economic Council of Canada made a substantial effort to measure resource rents across the provinces. The Council calculated not only the rents actually realized by the provincial treasuries (e.g., energy royalties), but also *potential* rents from such sources as the hydro utilities where the rents were not collected by the provincial government but rather passed on to consumers in the form of low electricity prices. Part V of this study, which discusses alternative equalization proposals, makes use of these estimates in constructing more comprehensive tax bases for the resource revenues and incorporates these bases in various equalization schemes.

It is probably not an exaggeration to suggest that the devising of more appropriate bases for the resource categories is one of the most difficult problems, both conceptually and quantitatively, facing the equalization program. As we shall see, the new RFPS version does go some way in dealing with this problem in that it redefines the energy revenue categories. However, some problems remain. This area will be treated in detail in Part VI.

Renewable versus nonrenewable resources

Under the 1977 Fiscal Arrangements Act, only 50 per cent of nonrenewable resource revenues were eligible for equalization, while 100 per cent of renewable resource revenues entered the formula. The workings of the RNAS equalization formula were roughly such that if a province developed its nonrenewable resource base it lost 50 cents in equalization for each dollar of own revenue it generated. However, there was essentially a *full* offset for renewable resources. This amounted to a tax on the development of renewable resources that was unduly distorting. It seems quite inappropriate for an equalization scheme to have incorporated provisions that affected the resource development policies of provincial governments to such a major extent. This differential treatment of renewable and non-renewable resources no longer exists under the new RFPS formula.

Gross versus net revenues

Under both the RNAS and the RFPS schemes, gross revenues enter the formula. Ideally, a *net* concept of revenues would be used—that is, gross revenues less the expenditures required to develop the tax base. For many revenue sources, such as sales taxes, these expenditures are probably quite similar in per capita terms across the provinces. For other tax sources, however, the differences in provincial expenditure are likely to be substantial. Thus, the development of a given resource base may require a province to undertake massive expenditures for highways, communications, and infrastructure. The other provinces will not participate in the cost of this development, yet they will receive a share of the gross revenue realized as a result of the development. In all fairness, the revenues that go into the formula should be *net* of development expenditures. There is no reason why Nova Scotia, say, ought to get its population share of gross revenues

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that accrue to other provinces, since Nova Scotia does not pay its population share of the cost of generating these gross revenues. The provision whereby only 50 per cent of nonrenewable resource revenues enter the formula might be said to provide some allowance, albeit an arbitrary one, for the difference between net and gross revenues for these revenue sources.

'Housekeeping' issues

This chapter has singled out several problems associated with the RNAS equalization formula—some of which characterize the new RFPS system as well. Admittedly, the selection of these issues has been arbitrary. Others might have selected an entirely different range of issues.

One set of problems associated with the RNAS formula has thus far been entirely neglected. The logic of the representative tax system is such that the revenue categories and the definitions of tax bases must be updated from time to time to ensure that they correspond with the taxing practices of the provinces. However, the questions that arise in this connection are essentially 'housekeeping' rather than conceptual issues. So, too, is the perennial concern relating to the so-called 'census undercount' with respect to some 'have-not' provinces, particularly Quebec. Obviously population estimates that are biased on the low side will result in lower equalization payments and are, therefore, of immense concern to the recipient provinces. But like questions associated with the definition of tax bases, problems of this kind will beset any equalization formula and will not be highlighted in this monograph.

The remainder of this chapter focuses on three closely related issues that pose far greater challenges to the equalization system than the problems discussed to this point—challenges not only to the operation of the RNAS version of equalization but to its underlying philosophy as well.

ENERGY AND EQUALIZATION

Energy-related modifications to the equalization program

Under the 1967 fiscal arrangements, which initiated the representative tax version of the equalization program, energy

revenues were equalized in full. The 1972 revisions to the program expanded the number of revenue sources and altered a few definitions of tax bases but left the treatment of energy essentially intact. Following the sudden increase in world energy prices in 1973 and 1974, Ottawa introduced a series of major changes in the relationship between energy revenues and the equalization formula. A brief survey of these changes follows.

Response to the world energy price increases of 1973 and 1974⁷

One of the federal government's first actions in response to the increases in world energy prices was to impose a tax on exported oil equal to the difference between the then-fixed domestic price and the rising world price. In effect, Ottawa absorbed the entire rent arising from the world/domestic price differential, which amounted to over \$6 a barrel by mid-1974. One rationale for this measure was the need to generate funds to enable the federal government to subsidize foreign oil imports in eastern Canada and thereby maintain a uniform price for energy across the country. In 1974 taxable exports of crude oil exceeded compensable oil imports (this, of course, is no longer the case), so Ottawa was a net financial beneficiary of this action.

The producing provinces reacted quickly, substantially increasing the royalties they exacted from oil and natural gas. Ottawa responded by disallowing the deduction of royalty payments to provincial governments for the purposes of federal corporate income tax calculations. As I have argued elsewhere, one rationale for this Ottawa initiative had to do with the implications of the royalty increase for the system of equalization payments (Courchene 1976, 73-107). If the domestic price were allowed to rise and the producing provinces were allowed to pocket the increased royalties, the result would be a very substantial rise in equalization payments. If, in addition, royalties paid to the provinces were deductible for corporate income tax purposes, Ottawa might find that its equalization responsibilities had increased substantially while its revenues had not increased commensurately; in particular, it would not be able to extract much revenue from the very provinces that were becoming wealthy and thereby causing the equalization payments to increase.

Of course, there were other considerations to be taken into account. Allocative efficiency dictated a rising domestic oil price, and if future

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energy supplies were to be ensured there would have to be an incentive for exploration. A compromise was reached whereby Ottawa maintained the nondeductibility of royalties but introduced (overly?) generous writeoffs for exploration and development and allowed the domestic price of oil to move gradually towards world price levels.

But the equalization dilemma remained. If Canada had gone to world oil prices in 1974, total equalization payments would have tripled, and in the process Ontario would have become a 'have-not' province. Therefore, in the fall of 1974 Ottawa abruptly and without provincial consultation amended the equalization formula. Energy royalties up to the 1973-74 levels would continue to be eligible for *full* equalization (i.e., each dollar of provincial energy revenue would enter the formula, as had been the case since 1967). But revenues from energy *above* the 1973-74 levels would be equalized only to the extent of one-third: one dollar of every three would be eligible to enter the formula.

This was a major alteration in the formula. For the first time since 1967, the concept of 'full equalization' had been abandoned. However, by continuing to subsidize imports for the eastern provinces (i.e., Quebec and the four Atlantic Provinces) in order to maintain a uniform domestic price, Ottawa could be viewed as providing an *alternative* form of equalization for these provinces, all of which fell into the 'have-not' category. Some figures on the benefits by provinces of this oil import compensation scheme will be presented later.

The 1977 Fiscal Arrangements Act

The next stage in the interaction between energy policy and equalization payments came with the 1977 Fiscal Arrangements Act. For present purposes, two provisions of the act are important. First, henceforth one-half of all energy royalties would be eligible for equalization. This replaced the previous provision whereby the full amount of 1973-74 revenues was eligible plus one-third of any additional revenues. Moreover, the one-half provision applied to *all* nonrenewable resources and not only to energy revenues (i.e., it applied to 'metallic and non-metallic minerals', revenue category 22, as well as to the seven revenue categories for oil and natural gas). For fiscal year 1976-77, the old and new approaches to energy yielded

approximately the same amount of eligible energy revenues for the formula. But beyond 1976-77 the new provision was far more generous: one-half rather than one-third of any additional energy revenues would now be eligible to enter the formula. The federal government's adoption of this approach to equalizing energy revenues was rather surprising, since its initial position during the negotiations leading up to the 1977 fiscal arrangements had been that equalization payments were already growing too rapidly. The new provision essentially ensured that equalization payments would continue to rise rapidly as energy prices rose and, moreover, that it would only be a matter of time before Ontario became a 'have-not' province.

The second energy-related provision in the 1977 act was the 'resource cap' discussed in the previous chapter. Under this provision, the entitlements from all of the resource categories (renewable as well as nonrenewable) for the seven traditional 'have-not' provinces were summed; if this total exceeded one-third of total equalization, the resource revenues eligible for equalization would be scaled down proportionately until their share of the whole fell to one-third.

As was noted earlier, the 'resource cap' never became binding before it was dropped from the formula in 1982. Nevertheless, two problems implicit in this provision are worth mentioning here. One relates to the fact that the cap was to apply in *aggregate* and not to each individual province. If the cap had become binding, the ratio of energy-related equalization to total equalization for two provinces (Quebec and Manitoba) would have been well above one-third, whereas the comparable ratios for the four Atlantic provinces would still have been well below one-third. This would surely have led to a demand from the Atlantic Provinces that the cap be applied on a province-by-province basis: why should they be denied energy-related equalization because the Quebec and Manitoba ratios exceeded the one-third limit?

The second problem was that the resource-cap provision did *not* prevent Ontario from becoming eligible for equalization. Ontario's energy revenue entitlements were not included in the calculation procedure for establishing the official resource ceiling. Thus, Ontario could qualify for equalization even if the *actual* amount of resource-related equalization (although not the 'official' amount) exceeded the one-third ceiling. Scarcely one year into the new arrangement it

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became clear that Ontario was indeed headed for 'have-not' status. Ottawa's response was Bill C-24.

Bill C-24

Originally introduced in December 1978 as Bill C-26, Bill C-24 became law early in 1981. One provision of this Bill was the so-called 'personal income override', which is the means by which Ontario has been excluded, retroactively, from receiving any equalization payments. This will be dealt with later in the chapter.

A second provision of Bill C-24 provided that revenue category 20 (revenues from the sale of Crown leases) be phased out of the equalization program over the fiscal years 1979-80 to 1981-82. As the data in Table 4.3 reveal, the phase-out was fully effected: no 'revenues to be equalized' are associated with this category. The rationale for this move is not entirely clear. On the one hand, it reduced the likelihood that the resource cap would become binding.⁸ On the other, it served to reduce overall equalization, which was consistent with the federal government's general move toward restraint in this period.⁹ For example, preliminary estimates indicated that revenues from this source for 1981-82 totalled \$454 million, of which one-half or \$227 million would otherwise have been eligible for equalization. This would have led to increased equalization flows of just under \$100 million. The reduction in equalization would have been even larger in 1979-80, when this measure was first proposed.

Another energy-related modification was introduced in 1981. As part of the National Energy Program, the Government of Canada agreed to share with Saskatchewan and Alberta 50 per cent of the existing export tax on crude oil exports. This new category of provincial revenue became eligible for equalization; it appears as revenue source 30 in Tables 4.1 to 4.3. As was noted in the discussion of these tables, the revenues from this source were largely responsible for Saskatchewan's ineligibility for equalization payments in fiscal year 1981-82.

These, then, are the principal modifications to the energy portion of the equalization program that were introduced in response to the dramatic rise in the world energy price in 1973-74. They were difficult to rationalize in terms of the RNAS equalization program because they represented a departure from the norm of equalizing *all*

revenues from each tax source. As we shall see, the RFPS version of equalization once again brings all of the energy revenues back into the program. However, the manner in which it does so is such that energy revenues account for a very small portion of overall equalization payments. But this is a subject for Part VI of this study.

The remainder of this section focuses on the quantitative impact on equalization of the above measures.

Estimates of the financial implications of the energy-related changes to equalization

What would the level of equalization for fiscal year 1981-82 have been if none of the above energy-related provisions had been adopted? This question can be answered from the data in Tables 4.2 and 4.3, with the addition of some estimate of the revenues associated with category 20, the sale of Crown leases. (Revenues for this category have been set equal to zero for purposes of these tables, since by 1981-82 they had been phased out by Bill C-24.) Somewhat arbitrarily, these revenues are assumed to be \$700 million, or roughly 70 per cent of their estimated value for 1982-83.

The calculations involved can be broken into two parts:

— *Resource revenues would be equalized in full.* This means that the values for equalization for the six receiving provinces from Table 4.3 for categories 16 through 22 plus 30 must be added in again. For category 20, the fiscal deficiencies of the six provinces are multiplied by \$700 million, the assumed value of revenues from the sale of Crown leases.

sub-total: \$1,327 million

— *Ontario would receive equalization.* Ontario's entitlements for 1981-82 would be included (i.e., 350 million from Table 4.3). In addition, one must add in again Ontario's equalization entitlements for categories 16 through 22 in order that resource revenues be equalized in full. Finally, Ontario's equalization from category 20 must be added.

sub-total: \$1,520 million
TOTAL: \$2,847 million

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Thus, in the absence of any of the energy-related modifications, equalization payments for 1981-82 would have been nearly \$3 billion higher than the actual level of \$4.61 billion. Moreover, at the margin the equalization program would have been extremely costly: *for each additional dollar of provincial resource revenue (particularly for energy), the cost to Ottawa in terms of increased equalization payments would have averaged about 75 cents; that is, the population share of the six recipient provinces plus Ontario.* Small wonder that the federal government moved to minimize the impact of energy revenues on the equalization formula.

However, even with these modifications in place energy revenues still represented a significant problem for the RNAS equalization program, particularly since domestic energy prices were scheduled to increase. What follows is an analysis of the impact on RNAS equalization of a \$1 per barrel rise in the price of oil (and an equivalent rise in the price of natural gas). The data employed refer to fiscal year 1979-80. What is more important, the results relate to the period *before* the introduction of the National Energy Program (NEP). A short discussion of the NEP itself will come later.

*The impact of a \$1 per barrel increase in the price of domestic energy*¹⁰

Table 5.1 presents data relating to the impact on the RNAS equalization formula of a \$1 per barrel increase in the domestic price of oil and a heat-equivalent increase in the domestic price of natural gas (15 cents per MCF). As noted above, these data relate to fiscal year 1979-80.

Row B.1 of Table 5.1 presents estimates of the costs by province and in total that resulted from each \$1 increase in the price of domestic fossil energy in 1979-80. The total transfer to the energy sector was roughly \$900 million. Ontario's share of the total cost was \$323.2 million.¹¹

Row B.2 presents an estimate of the royalties that went to the producing provinces. Underlying these figures is the assumption that total revenues from the price increase amount to \$1 billion. Remember that these figures refer to a period *before* the introduction of the NEP in 1980. Under the royalty arrangements that were in place in 1979-80, roughly 42 per cent of the total industry revenue of \$1 billion accrued to the provinces. Thus the figure of \$420.8 million

TABLE 5.1

The impact of raising the domestic price of energy on the equalization formula, 1979-80

	NFLD	PEI	NS	NB	QUE	ONT	MAN	SASK	ALTA	BC	Total
<i>Panel A: The allocation of federal revenue</i>											
A.1: Source of federal revenue (%) ^a	1.38	0.28	2.40	1.90	23.60	38.87	3.60	3.37	12.01	12.79	100%
<i>Panel B: A 'balance sheet' for a \$1 per barrel rise in the price of domestic energy</i>											
B.1: Cost to provinces (\$ millions) ^b	18.1	3.9	35.9	30.8	199.2	323.2	30.0	40.5	123.1	86.0	890.7
B.2: Royalties for producing provinces (\$millions) ^c	-	-	-	-	-	0.9	1.5	28.0	361.8	28.6	420.8
B.3: Resulting equalization increase (\$ millions)	5.1	1.0	7.6	6.3	56.2	0.0 ^d (75.4)	8.3	-6.4	0.0	0.0	78.1 ^d (153.5)
B.4: Funding allocation for equalization (\$ millions)	1.1	0.2	1.9	1.5	18.4	30.2	2.8	2.6	9.4	10.0	78.1
B.5: 'Net balance' (\$ millions) ^e	-14.2	-3.1	-30.2	-26.0	-161.4	-352.3	-23.0	-21.5	229.3	-67.4	

^a These shares were calculated as follows. Ottawa's tax revenues come principally from three sources: personal income taxes, corporate income taxes, and indirect taxes. We made the simplifying assumption that all of Ottawa's revenues come from these three sources. Next we allocated provincial shares of these taxes according to the tax-base shares (derived from the equalization tables) for personal income taxes, business income taxes, and general sales taxes respectively. The provincial shares in row A.1 are the result of applying weights (summing to unity and based on the share of federal revenue) and summing the three provincial revenue categories. Note that these figures are based on pre-NEP data.

^b These are based on 1978 consumption levels and are calculated as the sum of the costs of crude oil and its equivalent, natural gas, and LPGs. The crude oil consumption levels by province are taken from the December 1978 issue of Refined Petroleum Products (Statistics Canada: 45-004), Table 3 (utilizing 'domestic disappearance'). Natural gas consumption by province is taken from the December 1978 issue of Crude Petroleum and Natural Gas Production (Statistics Canada: 26-006), Table 5, lines 18 through 24. Data for LPG consumption by province (net of that reported from the crude oil and equivalent sources) were estimated from NEB data. The price of natural gas was assumed to increase by 85 per cent of the heat-equivalent increase in oil. Specifically, a \$1 per barrel increase in the price of oil was assumed and a 14.65 cent increase (per MCF) in the price of natural gas.

^c Assumes roughly \$1 billion in revenues to the oil and gas industry. Royalties are assumed to average 42 per cent, yielding the \$420.8 million total. Revenues from corporate income taxes are excluded for this calculation. The natural gas equivalent price increase is assumed to be 15 cents MCF.

^d Ontario is assumed to be ineligible to receive equalization payments. The bracketed figures are those that would apply if Ontario received equalization.

^e The net balance equals B.2 + B.3 - B.1 - B.4. The balance for Ontario assumes that Ontario will not receive equalization payments. SOURCE: Adopted from Table 2 of Courchene and Copplestone (1980).

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in the total column for row B.2. Of this total, \$361.8 million accrued to Alberta. The remaining \$600 million accrued principally to the energy industry. Perhaps 10 per cent went to Ottawa, although given sufficient exploration expenditure Ottawa's revenues from energy-derived corporate taxes could, under the pre-NEP arrangements, fall to little more than zero. Both the industry and the federal government figures are omitted from Table 5.1.

Row B.3 contains the equalization entitlements that arose from the royalty increase. One-half of the \$420.8 million was eligible for equalization and this amount generated equalization flows (based on 1979-80 fiscal capacities) of \$78.1 million. Ontario was excluded (retroactively, under Bill C-24) from receiving equalization.

Row B.4 attempts to answer the following question: where did the money come from to pay for this \$78.1 million equalization bill? The answer, of course, is that it came from the taxpayers. In particular, since the federal government funded the program, the monies came from taxpayers' contributions to the federal coffers. Row A.1 of Table 5.1 presents a rough-and-ready allocation of federal revenue by province in the pre-NEP period.¹² As the figures indicate, taxpayers in Ontario accounted for about 39 per cent of Ottawa's revenues, while taxpayers in Alberta accounted for 12 per cent. Utilizing these percentages, row B.4 allocates the funding for the \$78.1 million equalization bill across the provinces.

The last row of the total presents a 'net balance', defined as the benefits to 'provinces' of the energy-price increase (rows B.2 and B.3) less the costs (rows B.1 and B.4). In fact, this net balance figure is something of a 'hybrid', in that the benefits relate to flows to provincial treasuries whereas the costs pertain to burdens borne by citizens of a province either through direct spending on energy (row B.1) or through additional tax burdens occasioned by increased equalization (row B.4). In any case, the results are quite dramatic. The net benefit to the province of Alberta of each \$1 per barrel increase in the price of domestic energy was \$229 million. By contrast, the net loss to the citizens of Ontario was \$352.3 million!

Of immediate interest here is the impact that rising energy prices had on equalization—the increase in federal equalization payments of \$78.1 million for each dollar rise in domestic energy. However, there were two important offsets to this figure. First, at a fixed world price level, for each dollar that the domestic well-head price increased,

Ottawa's expenditures on oil-import compensation fell. Gross compensable oil imports for 1981 were in the neighbourhood of 130 million barrels. Thus for each dollar rise in the price of domestic energy, Ottawa's compensation expenditures fell by \$130 million, assuming no change in the world price. Hence, actual gains from this aspect of raising the domestic price exceeded the resulting equalization payments.

Second, and more important, the results in Table 5.1 focus on only one side of the energy price issue, namely the implications of a rise in the domestic energy price. It could as easily be shown that the amount by which the domestic price fell short of the world price represented a cost to the producing province and a benefit to provincial residents. Since domestic prices were well below world levels in 1979-80, the signs associated with the 'net balance' figures in row B.5 would, by this reckoning, be reversed.

In spite of the very controversial nature of the exercise, the conclusion is clear enough. The pricing policy with respect to energy does generate massive interprovincial redistributions of income and wealth. Moreover, energy pricing had substantial implications not only for equalization flows but also for the manner in which the program was funded, an issue which I shall now address.

THE FUNDING OF EQUALIZATION PAYMENTS

Closely associated with the role of energy in the RNAS equalization program were issues relating to the funding of the system. Table 5.1 casts one of these issues in bold relief. In 1979-80 each \$1 per barrel increase in the price of domestic energy generated nearly a billion dollars of extra expenditures on the part of Canadian citizens and in the process added over \$323 million to Alberta's coffers. In turn, this revenue generated \$78.1 in equalization payments under the RNAS formula. Ontario was disallowed by Bill C-24 from receiving its equalization flow of \$75.4 million from this oil price increase (the bracketed figure for Ontario in row B.3), yet its citizens were called upon to contribute \$30.2 million toward the funding of the energy-generated equalization (row B.4).

Elsewhere, I have referred to this as the 'funding inequity' associated with the RNAS formula (Courchene 1980, 129). Basically it arose because Ottawa agreed to *equalize revenues the bulk of which*

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were not under its own control. This situation did not arise for income taxes, for example. Suppose that one province's income tax base increased and its tax revenues rose. This led to additional equalization. However, since the income tax base was *shared* with Ottawa, the latter's receipts from this province also rose. *There was, therefore, a rough-and-ready correspondence between the provincial source of the increased equalization and the source of Ottawa's revenue increases.* Before the introduction of the NEP, this was not the case with energy. Oil and natural gas royalties were piling up in Alberta and generating increased equalization. But Ottawa's share in these revenues was quite minimal. One result was that Ontario residents were called upon to contribute 38.87 per cent (row A.1 of Table 5.1) of the additional equalization cost of Alberta's energy revenue bonanza.

Not all analysts will be happy with this approach to the costs and benefits of RNAS equalization. After all, *Canadians with the same income and family status contribute identical amounts to the program's funding, regardless of their province of residence.* This was so because federal taxes do not discriminate by province of residence. On this basis, *there was no funding inequity.* In general, I agree that it can be a misleading and mischievous exercise to attempt to sort out the costs and benefits by province of all of Ottawa's programs. However, energy royalties are very much a special case, and I believe that they do pose an important funding issue.

To this point, the discussion might be labelled 'the Ontario position'. Certainly, the Government of Ontario saw the matter in a similar light:

The above problems, taken together [the reference is to issues of the sort discussed above] were seen to involve a funding inequity. On the one hand, the Province of Ontario was excluded from receiving equalization. On the other hand, by virtue of the structure of federal taxation, the Ontario economy was being called upon to finance increased equalization to the traditional recipient provinces caused by increased oil and gas revenues in the producing provinces. In other words, through the equalization program, a measure of energy revenue recycling was taking place, but it was being done inadvertently and unfairly. Ontario suggested, as a possible solution, that consideration be given either to an interprovincial resources fund financed by resource-rich

provinces that would operate in tandem with a reformed program of basic equalization, or a system of 'negative equalization' which would likewise involve contributions from the wealthy provinces. (Ontario 1981, 18)¹³

Both of these 'proposals' by Ontario will be treated in the 'menu' of alternatives to the RNAS program that appears in Part V of this monograph. It is interesting to note that Ontario viewed its willingness to accept exclusion under Bill C-24 as a *quid pro quo* for future reform of the equalization program:

For its part, the Government of Ontario chose not to press for its 'national' equalization, recognizing that its entitlements reflected a problem with the formula, not an inability—as the program objectives strive—'to provide comparable levels of public service at tax rates that are not unduly high'. It was, nevertheless, made clear that Ontario's acceptance of the special override on its entitlements was conditional on the program being reformed in 1982 as part of an overall solution to Canada's problem of regional fiscal imbalances. (Ibid., 17-18)

In general, this so-called funding issue was closely related to efficiency concerns with respect to equalization. If energy royalties are the principal source of differences in NFBs across provinces, the efficiency argument in Chapter 3 would call for some sort of interprovincial revenue sharing in order that they be equalized. Yet the funding of the increased equalization associated with the rise in domestic energy prices might well have *exacerbated* the differences in NFBs across provinces. Indeed, Purvis and Flatters, writing in the pre-NEP period, concluded on the basis of a somewhat similar set of concerns that 'under current ownership rights and federal-provincial fiscal arrangements any increases in domestic oil prices will increase the inefficiency in the regional allocation of resources (labour) in Canada' (Purvis and Flatters 1980, 147).

If this was the 'Ontario position', there was also an 'Alberta position' that merits airing.

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*An 'Alberta position' on funding*¹⁴

The very same table that was used to provide evidence for the so-called funding inequity can also be employed to provide a stout defence of Alberta's contribution to the economic well-being of the federation in the years following the sudden rise in world energy prices. Row B.2 of Table 5.1 indicates that in 1979-80 Alberta stood to gain roughly \$360 million from each \$1 increase in the price of energy. However, as noted above, this is also the revenue it was obliged to *forgo* for each \$1 that the price was not increased. Given world prices in 1979-80 (over \$20 above the domestic well-head price), *the forgone provincial revenues at unchanged production levels amounted to over \$7 billion per year*. Moreover, estimates emanating from Alberta suggest that by 1980 the province had already 'subsidized' Canadian consumers to the extent of some \$30 billion. Of course, this view of the matter assumes that the world price is the appropriate opportunity cost for Alberta's energy, an assumption that I accept. Even given a reference point lower than the world price (and Alberta was prepared to accept something less than the world price), the dollar value of the transfers made during the 1970s remains truly staggering. In the face of this massive transfer of purchasing power to the rest of Canada, it is difficult, to say the least, to argue that Alberta did not contribute its fair share to the funding of equalization, broadly defined.

However, there are really two conceptually separate issues here, although they are no doubt related in practice. One has to do with how equalization should be funded. The other has to do with who has the right to resource revenues. In my view there is no question that, under the constitution, Alberta has the right to control its own resources. Does this mean that it also has the right to control all the revenues arising from these resources? The answer to this question is probably no. An analogy may be appropriate. I have control over my supply of labour. In the extreme, I can decide not to work. Similarly, Alberta can decide to turn down the energy taps (as it did in 1981). But if I decide to seek gainful employment I am subject to both federal and provincial taxes on my labour income. Much the same case might be made with respect to the resource provinces: ownership of the resources does not necessarily imply that the provinces have the right to all revenues arising from the production of oil and gas, except

perhaps to the extent that they are shielded by Section 125 of the constitution.

In any event, it was very clear by the end of the 1970s that the federal government intended to collect a larger share of the energy royalties. The existing scheme, whereby Ottawa offered generous write-offs for exploration and development only to find that when oil and gas reached the production stage the provinces captured the royalties, was deemed unacceptable. The federal government's remedy was the NEP.

THE NATIONAL ENERGY PROGRAM

The NEP was introduced in the fall of 1980 and the follow-up bilateral agreements between the federal government and the energy-producing provinces were signed in the fall of 1981. What effect, if any, the energy problems associated with the equalization program had on the formulation of the NEP I leave to the reader to sort out. However, the NEP and the subsequent bilateral agreements have had an effect on the equalization program. Table 5.2 reproduces the revenue-sharing estimates that arose out of the 'Memorandum of Agreement' between Ottawa and Alberta. The two governments also agreed to a schedule of price increases for conventional oil, under which the domestic well-head price would rise from \$19.00 in the early fall of 1981 to \$57.75 by 1 July 1986. Given the current state of the world market for energy, it is generally conceded that both the scheduled price increases and the revenue-sharing estimates are probably very much on the high side. Nonetheless, we shall focus on the data in Table 5.2 in order to derive some implications for the RNAS equalization program (recognizing that this will present only a partial picture since the similar agreements with other energy-producing provinces are ignored). Two such implications seem important.

1 Let us assume that over the five-year period Alberta will receive \$60 billion in royalties. Under the RNAS formula, one-half of this total would enter the formula. The resulting equalization flows would total roughly \$12 billion over the five-year period (calculated by multiplying the population share of the six recipient provinces—i.e., 40 per cent—by the \$30 billion). The flows would average to \$2.4

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TABLE 5.2

Revenue-sharing estimates, 1981-86 (billions of dollars)

<i>Government of Canada</i>	
Canadianization levy	1.4
Natural gas and gas liquids tax	12.5
Oil export tax	0.2
Incremental oil revenue tax	6.2
Net petroleum and gas revenue tax ^a	14.3
Corporate income tax	19.7
Surplus petroleum compensation charge ^b	-
SUB-TOTAL	54.3
<i>Government of Alberta</i>	
Royalties and freehold tax	61.2
Alberta incentive programs ^c	(4.2)
Oil export tax	.2
Corporate income tax	3.9
Land payments	8.1
Petroleum incentive payments	(4.3)
Canadianization grants for synthetic oil	(0.6)
SUB-TOTAL	64.3
<i>Industry</i>	
Cash flow	73.7
Operating costs	23.7
Petroleum incentive payments	4.3
Land	(8.1)
Canadianization grants for synthetic oil	0.6
SUB-TOTAL	94.2
TOTAL REVENUES	212.8

^a Petroleum and gas revenue tax less Government of Canada PIP grants.

^b 'Surplus petroleum compensation charge' is any revenue accruing to the Government of Canada in excess of the amount required to finance oil import compensation and oil qualifying for the new oil reference price.

^c Includes Alberta drilling and geophysical incentives, new oil and gas royalty holidays, and enhanced-recovery royalty relief.

SOURCE: 'Memorandum of Agreement Between the Government of Canada and the Government of Alberta Relating to Energy Pricing and Taxation', 1 September 1981, Table 3.

billion per year, although given the price-increase schedule they would be much higher in fiscal year 1985-86 than they would be in 1982-83. By comparison, energy-associated equalization flows for 1981-82 amounted to approximately \$1 billion (see Table 4.3). Thus, if the old equalization formula were still in effect, the NEP would mean a hefty increase in energy-associated equalization flows (assuming that the resource ceiling did not become binding), though the increase would be a good deal larger if the NEP did not assign such a substantial portion of energy revenues to Ottawa.

2 Ottawa's share of revenues from energy has increased dramatically since the introduction of the NEP. Thus, if the RNAS formula still applied, one might argue that the 'funding inequity' referred to earlier was no longer as important an issue as it had been prior to the NEP, since the federal government would now get energy revenues sufficient to cover the resulting equalization. However, if Ontario remained excluded from receiving equalization, the efficiency problems associated with equalization would certainly be exacerbated. I shall argue, particularly in Part VI below, that considerations such as these played an important role in the design of the new (1982-87) equalization program.

At this juncture, some perspective on the post-1974 interaction between equalization and energy may be appropriate. In the wake of the first oil-price hike in the early 1970s, the federal government raised domestic energy prices *only after* it unilaterally altered the equalization formula so as to mitigate the impact of increased provincial energy revenues on equalization flows. In the wake of the second (1979-80) world energy-price shock the initial federal initiatives went the other way—they ensured that the federal government received a much larger share of any further domestic price increase. However, the equalization program was once again altered. As will be detailed in Part VI below, the workings of the new RFPS formula are such that even if Alberta's energy revenues were to rise substantially, this would have a minimal impact on equalization payments. To phrase this somewhat differently, a new series of domestic energy price hikes could now be accommodated with little spillover in terms of equalization flows.

THE ARBITRARY EXCLUSION OF ONTARIO: THE PERSONAL INCOME OVERRIDE

The final item to be dealt with in connection with the characteristics and problems of the RNAS version of equalization is the decision to make Ontario ineligible to receive equalization payments. In terms of the equalization formula, Ontario qualified as a 'have-not' province for each year of the five-year period during which the 1977 Fiscal Arrangements Act applied—that is, fiscal years 1977-78 through 1981-82. The reason for Ontario's fall into the 'have-not' category is obvious from Table 4.3. In fiscal year 1981-82, the province's positive entitlements from the energy-revenue categories exceeded its negative entitlements from categories such as personal and business income taxes, in respect of which it had been traditionally a 'rich' province. Not evident from this table, however, is another reason why Ontario ended up with an overall positive entitlement of \$350 million for 1981-82. Ontario's share of personal income and business income taxes, while still above the national average in 1981-82, had declined rather dramatically over the preceding few years. In the mid-1970s, Ontario had a fiscal capacity excess for personal income taxes on the order of 9 per cent and for business income taxes of over 7 per cent. From Table 4.2, the corresponding 1981-82 figures are 3.25 per cent and 0.98 per cent. In other words, the westward drift of economic activity has left Ontario no longer as 'rich' as it once was, even in terms of the *nonenergy* sources. This state of affairs was revealed in Tables 4.5 through 4.7.

These two factors (which are, of course, interrelated) have made Ontario a member of that distinctively Canadian club—the 'have-not' provinces. However, under Bill C-24, which was signed into law in early 1981, Ontario is excluded *retroactively* from receiving any equalization payments. The thrust of Bill C-24 is that no province is eligible to receive equalization flows if its personal income per capita exceeds the national average personal income per capita in the current year and the previous two years. In effect, this bill applies only to Ontario. Indeed, it was specifically designed for this purpose. In the equalization parlance, this provision has come to be known as the 'personal income override'.

The fact that a bill passed in 1981 should apply retroactively to as far back as fiscal year 1977-78 becomes understandable once it is

recognized that it did not become clear until well into 1978 that Ontario was likely to be classified as a 'have-not' province for fiscal year 1977-78.¹⁵ Almost immediately, the federal government introduced a bill similar to Bill C-24 (it was then called Bill C-26). The bill received first reading on at least one occasion, but the federal elections of 1979 and 1980 prevented it from becoming law until early 1981.

The costs to Ontario of this provision were rather substantial. In his 1981 budget, Ontario treasurer Frank Miller noted that the personal income override has deprived Ontario of the following entitlements (Ontario 1981, footnote 6):

1977-78	\$ 113 million
1978-79	\$ 296 million
1979-80	\$ 464 million
1980-81	\$ 265 million
1981-82	<u>\$ 209 million</u>
5-year total	\$ 1,347 million

This is a large amount indeed, and yet it is probably a substantial underestimate. More recent estimates of Ontario's entitlements are much larger (e.g., from Table 4.3 the estimate for 1981-82 is, as noted above, \$350 million rather than the \$209 million announced by the Ontario treasurer). In order to put these figures in perspective, it is instructive to note that the 10 per cent increase in Ontario's personal income tax rates from 44 per cent to 48 per cent (also introduced as part of the 1981 budget) was estimated to yield \$450 million in fiscal 1981-82.

For our purposes, however, the issue is not whether the amounts involved are large. Rather it is the *principle* involved. It may indeed be desirable to design an equalization program for Canada that does not have Ontario as a recipient province (and the new RFPS approach does precisely this!). However, the personal income override was an untenable means to this end. Not only was it arbitrary, but it called into question the whole rationale of the program. Neither in theory nor in practice does equalization have anything to do with personal income disparities across provinces. (Whether it should is an important and intriguing question—one that will be addressed later in the study.) Rather, equalization has to do with ensuring that

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provinces have access to a generally accepted level of revenues. On this score, Ontario clearly falls short (as Tables 4.5 to 4.7 make very apparent). Making Ontario ineligible to receive equalization payments by resorting to the personal income override introduced yet another arbitrary feature into the already beleaguered RNAS approach. In short, the increasing degree of arbitrariness associated with the formula was both undermining confidence in the program and obscuring its underlying philosophy.

On the other hand, it is also clear that a formula under which traditionally 'rich' Ontario became a recipient of equalization would also undermine Canadians' confidence that the program was serving an equitable goal. Interestingly enough, Ontario's own position, as quoted above, *was that it ought to be excluded*. The province argued that any equalization program under which it became a recipient was obviously flawed by *overequalization*—that is, it was far too generous a scheme. Ontario also argued that in return for its being excluded, the program should be redesigned in order to allow the resource-rich provinces to contribute their fair share to the funding of equalization.

Thus, Ontario felt that it was being discriminated against in a twofold manner: it was not eligible to receive equalization, yet it was called upon to fund a disproportionate share, relative to the resource provinces, of the costs of the program. This posed a difficult problem for those charged with the design of a new equalization program. If Ontario was to be excluded from receiving payments, this had to be done in a manner consistent with the internal workings of the program. The obvious approach was to make Ontario the 'standard' for equalization; that is, all provinces' revenues would be brought up to the Ontario per capita level. By definition, this arrangement would exclude Ontario from being a recipient province. As we shall see, a scheme of this sort was in fact the federal government's initial solution to the problem of designing a new equalization formula. After much prodding from the provinces, Ottawa dropped the proposed 'Ontario standard' in favour of the RFPS formula, which also excludes Ontario.

CONCLUSION

This completes the description and evaluation of the RNAS approach to equalization. The foregoing analysis is important in its own right.

However, it is also important because it provides the backdrop needed for an adequate understanding of the RFPS approach, since the latter program was designed in part to address those aspects of the RNAS approach that were a cause for concern.

To conclude Part IV, it is instructive to reiterate those aspects of the RNAS that could be viewed as particularly troublesome and, therefore, generated pressure for a reform of equalization.

— The program costs were being driven by energy revenues. Might an alternative scheme be able to limit the impact on equalization of any further rise in energy prices?

— The RNAS system no longer treated all revenue sources in an identical manner; that is, only 50 per cent of nonrenewable resource revenues were eligible to enter the formula. Moreover, because 100 per cent of revenues from renewable resources entered the formula, the provinces had an incentive to develop nonrenewable rather than renewable resources.

— If it is deemed appropriate to exclude Ontario from equalization, should this not be accomplished by the formula itself rather than via some *deus ex machina*?

— Had the time not come to include *all* provincial and local revenues in the equalization formula?

— Were there not preferable ways to fund equalization?

There were, of course, a number of other concerns, relating to such matters as the appropriate definitions of tax bases and the 'strategic' problems alluded to earlier. But these were clearly secondary issues. However, what also gave a substantial boost to the reform movement was the burgeoning literature relating to the theory of equalization. As was discussed in Part III, the focus on equalizing NFBs generated new interest in interprovincial revenue-sharing schemes. Moreover, the well-publicized hearings of the Parliamentary Task Force on Fiscal Arrangements led to yet another round of proposals for equalization. Therefore, despite the general view that the RNAS had contributed to achieving the stated goals of equalization, the pressures for revising the formula began to dominate.

The remainder of the monograph is devoted to the manner in which these issues were resolved. Part V focuses on some alternative options

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for equalization—options that for one reason or another were not adopted. However, each of these alternatives was directed toward 'solving' one or more of the problems enumerated above.

Part VI describes and evaluates the new RFPS equalization formula. Integral to this analysis is a discussion of the 'Ontario standard' for equalization, the federal government's original proposal for an alternative to the RNAS. Since the various sections of the study are designed to be relatively self-contained (and, therefore, embody some repetition), the reader may wish to go directly to the analysis of the RFPS in Part VI.

NOTES

- 1 This section is a nontechnical recasting of an earlier analysis by Courchene and Beavis, (1973, Part III).
- 2 It is assumed here that the increase in Nova Scotia's tax rate will *not* alter its tax base. In other words, retail sales in Nova Scotia are assumed not to decline as a result of the increase in the sales tax rate. This assumption is probably unwarranted. However, as long as the percentage decline in the tax base is less than the percentage increase in the tax rate, the qualitative nature of the results remains unchanged. The quantitative measure of the change could be either larger or smaller, since a fall in the tax base would lower revenues to be equalized, but it would also lower Nova Scotia's share of the tax base. These two influences affect the equalization payment in opposite ways.
- 3 This need not always be so. Courchene and Beavis (1973, 493) provide a numerical example in which a province actually suffers a decrease in total revenues as a result of an increase in one of its tax bases—that is, the equalization loss more than offsets the own-revenue gain. This can happen if a province's own tax rate is considerably lower than the national average tax rate.
- 4 That is, the dollar level of equalization will remain the same. In per capita terms the equalization flow will rise. The example could have been designed to leave the latter unchanged.
- 5 In the early 1970s, Parizeau (at that time the head of University of Montreal's Business School) gave a series of lectures at the University of Western Ontario in which he noted that during his stint as a civil servant in Quebec the Quebec cabinet would routinely ask for the equalization implications of its alternative tax packages prior to making the final decision. I expect that most other recipient provinces did the same.
- 6 To provide some insight into the amount that Quebec might have recouped, let me utilize the equalization tables for 1981-82 in the previous chapter where Quebec's tax base share for spirits in 1981-82 was 17.46 per cent (Table 4.1). Total revenues to be equalized were \$1,083 million. Assuming that Quebec's tax rates were identical to those of the other provinces, this would imply that its tax revenues from this source were \$189.1 million (i.e., 17.46 per cent of \$1,083 million). Thus its total revenue from this source in 1981-82 was \$287 million—\$189.1 million in own-source revenue and \$97.9 million in equalization (see Table 4.3). If its tax base were *zero* for this year, its fiscal deficiency would be its population share (26.49 per cent) and total revenues to be equalized would fall to \$893.9 million (i.e., \$1,083 million minus

Quebec's share of revenues). Under these assumptions, Quebec's 1981-82 equalization entitlement for this tax base would equal \$236.8 million. Thus, it would recoup a large chunk of its lost revenues. If its tax rate were lower than the national average, it would recoup an even larger proportion, and vice versa. Notice that the entitlements for all other provinces would also be altered. Thus, from Table 4.3, New Brunswick receives \$6.3 million in equalization entitlements on the basis of total revenues from spirits. If its base share remained unchanged, its entitlement would fall by 17.46 per cent, since in the absence of Quebec's revenues total revenues to be equalized would fall by this amount. But its share of the base would increase if Quebec had a zero base. Indeed, its fiscal deficiency would fall from .58 (from Table 4.2) to .10. Hence its overall equalization would fall from \$6.3 million to \$.89 million (i.e., .10 per cent times \$893.9 million). Thus, Quebec's gain would be at the expense of other 'have-not' provinces. Note that this example is meant to be illustrative of what might have happened as a result of the Quebec liquor strike. Published data are such that it is not possible to figure out the exact implications of the strike.

- 7 This section is essentially 'lifted' from Courchene (1980, 111-15).
- 8 Preliminary estimates for equalization in the late 1970s did suggest that the one-third resource ceiling might become binding.
- 9 As I have indicated elsewhere (Courchene 1980, 116), the elimination of this revenue category came in the wake of Prime Minister Trudeau's efficiency drive following the Bonn Summit in mid-1978 and thus it is possible to view it as part of the overall program of fiscal restraint embarked upon in the fall of 1978.
- 10 This analysis is adopted from Courchene (1980).
- 11 This is very close to Ontario's own estimate of \$310 million. See Davis (1979, 5).
- 12 An alternative set of provincial shares of federal tax revenues is provided by the Economic Council of Canada (1982, Table 2.2). However, the shares reported by the Council do not differ from the shares reported in row A.1 by enough to alter the thrust of the table. More generally, estimates of these provincial shares are now provided by Statistics Canada in its occasional publication *Provincial Economic Accounts*.
- 13 In this passage provincial treasurer Frank S. Miller summarized comments he made in his 1980 budget.
- 14 These are my views of the Alberta position. They are not meant to reflect the views of the Alberta government.
- 15 This delay reflects both the lag associated with obtaining the final estimates for equalization for any given year and the difficulty of forecasting revenues from the energy sector.

PART V
OPTIONS FORGONE

6

Variations on the RNAS theme

Part VI of this study will focus on Canada's present equalization program, dealing first with the 'Ontario standard', Ottawa's initial proposal for an alternative to the RNAS, and then with the 'representative five-province standard' (RFPS), the program that Parliament finally enacted in the spring of 1982 and that will apply for the duration of the 1982-87 fiscal arrangements. The present part of the study discusses approaches to equalization that were passed over by our federal legislators. Some of these alternative schemes, notably the two-tiered versions of equalization, were probably rejected on political grounds: the richer provinces were not prepared to make direct contributions to an equalization pool, while some of the recipient provinces preferred to have equalization monies come from the federal government rather than receive them from their sister provinces. Moreover, the federal government itself probably did not look too kindly on the two-tier approach, given its rising concern over 'visibility'. Other proposals were rejected for reasons that can be labelled either philosophical or practical. For example, adopting a 'macro' scheme would have meant both a major change in the conceptual underpinnings of the program and a significantly altered distribution of the equalization flows among the recipient provinces. Still other schemes probably foundered on their sheer complication, whether analytical or statistical.

Despite this record of rejection, it is highly revealing to focus on these forgone options. For one thing, an understanding of these alternatives enhances one's understanding of the RFPS equalization program and the way in which it is designed to address the series of problems that were deemed to plague the old RNAS version. Second,

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the alternative schemes are of considerable interest in their own right. Some of them have been kicking around in equalization circles, as it were, for well over a decade, and it is of some value to consider what their adoption would have implied for equalization in fiscal year 1982-83. Finally, as is apparent from the theoretical analysis of the previous chapter, the economic theory relating to equalization is evolving rather quickly. Some of the proposals discussed in this section are more in line with current theory than is the RFPS scheme, and it may be that the equalization program of the future will incorporate some features of these forgone options. A related point is that Canada's equalization program undergoes a review every five years. Even though this is only the third year of the present five-year regime, it is not too soon to prepare for the next cycle of negotiations. The presentation of a broad array of alternatives, complete with their numerical implications where these can be given, should provide a useful first step in laying the background for the upcoming dialogue relating to the 1987 revision of equalization.

Chapter 7 deals with what has come to be known as the 'macro formula' approach to equalization. The essence of this approach is the replacement of the thirty-odd representative tax bases by a *single* (i.e., macro) tax base, normally some measure of provincial output or income. Chapter 8 focuses on two-tier systems, the essence of which is some sort of interprovincial revenue-sharing pool for resource revenues. In addition, the chapter deals with some of the many other proposed alternatives for handling resource revenues in the equalization formula.

Chapter 9 discusses a 'fiscal needs' approach to equalization. The equalization standard in this scheme represents a rather literal interpretation of what might constitute 'reasonably comparable public services', the phrase used in the new constitutional provision for equalization. In effect, this approach focuses directly on equalizing expenditure needs of the provinces in relation to their revenue means. This is in contrast to all the other approaches in the study, which in effect equalize provincial revenues.

Finally, Chapter 10 provides a link between these forgone options and the new equalization formula. It deals with the equalization proposals of the Parliamentary Committee on Federal-Provincial Relations and to a lesser degree those of the Economic Council of Canada.

The remainder of the present chapter briefly considers yet another set of alternatives, namely those that would have maintained the RNAS approach.

MAINTAINING THE RNAS

One obvious alternative was to stick with the status quo. After all, the RNAS program could be viewed as having accomplished the enunciated goals of equalization. Some tax bases might have to be redefined (e.g., the tax base for water power rentals). If the federal government was worried about the possibility of equalization escalating too quickly, the program could be 'capped' by limiting increases in any year, or preferably the cumulative increase from a specified base year, to the rate of GNP growth. With such a cap in place, Ottawa could afford to bring in a new tax base or two. And so on.

Nevertheless, the disadvantages of this 'band-aid' approach would be considerable. The program would continue to be perceived as being arbitrary, since, in order to contain equalization flows within acceptable limits, it would have to retain the various overrides (the personal income override, the limitation on the amount of resource revenues eligible to enter the formula, the resource cap, etc.). This would generate continued pressure from various quarters—pressures that would argue strenuously for change and that would also serve to undermine the rather broad support that the principle of equalization had hitherto enjoyed from all partners to the federation.

However, there is one variant of the RNAS that may well have deserved serious consideration. In the equalization jargon, it is referred to as RNAS-20—that is, the RNAS approach for the non-resource revenues with 20 per cent of resource revenues entering the formula. This approach will be elaborated in more detail later in the study, since it was recommended at least implicitly by the Parliamentary Task Force and was proposed by the Province of Saskatchewan midway in the negotiation process. For present purposes, it is enough to say that while the 20 per cent eligibility for resource revenues can be viewed as arbitrary, it can also be defended from several theoretical vantage points, including an application of the principle of narrow-based horizontal equity. Moreover, downplaying energy-related equalization opens the way for extending

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coverage to new tax bases. Indeed, one of the conclusions of the study is that there is much to recommend the RNAS-20, given how it compares with the RFPS.

The description of this alternative, with its special approach to resource revenues, leads to a general observation relating to the design of any equalization program. As was noted in Chapter 1, there are four components to most equalization programs—the revenues eligible for equalization, the definition of fiscal capacity deficiencies and excesses, the standard up to which all provinces are to be brought, and the manner in which the program is funded. With this many parameters free to vary, probably most approaches to equalization can be ‘juggled’ to bring about any desired set of payments. This observation has two implications for design that should be kept in mind for the remainder of the study. The first is that the selection of any one feature of an equalization scheme may not have much impact on the resultant equalization flows, since it will always be possible to alter other parameters to generate a ‘desired’ result in terms of overall payments. Second, given that the above is true, it may be politic to opt for a program that appears to ‘solve’ some of the more blatant defects of the RNAS system. In other words, even if two programs can be made to generate the same overall result in terms of equalization payments, it will probably be beneficial to choose the formulation that, on the surface at least, appears to be the most comprehensive in terms of coverage, the most uniform in terms of treatment of tax bases, and the least arbitrary in terms of the external restraints that are imposed on the program. In a nutshell, I suspect that these considerations constitute much if not most of the justification for the RFPS version of equalization. But this is getting ahead of the story.

BLOCK-FUNDING EQUALIZATION

One of the perennial federal concerns relating to the equalization program has been the fact that the system is *internally* driven and, therefore, *not under federal control*. Most, if not all, of the later amendments to the RNAS system were motivated by a desire to prevent equalization from mushrooming. The dilemma for the federal government has always been one of how to improve the program in terms of uniformity and comprehensiveness of coverage without generating an unacceptable financial burden. One possible

solution to this dilemma, and one that Ottawa raised publicly during the negotiations that preceded the 1977 fiscal arrangements, is to 'block-fund' equalization.

To 'block-fund' the program would be to take the current total *level* of equalization as a base and escalate this base each year by the rate of growth of gross national product or some similar escalator. In effect, *total* equalization flows would henceforth be determined by, say, the rate of GNP growth. *Thus, total equalization flows would be independent of the specific equalization formula.* The role of the equalization formula would then be to determine the *distribution* of total equalization flows. The formula could be made as comprehensive and representative as possible (i.e., all resource revenues could be included, and municipal taxes as well), since there would be no avenue for these changes to influence the *size* of the overall payments. Provinces would be allocated *shares of the predetermined aggregate flows* on the basis of their respective revenue needs. Obviously, the equalization formula would not have to be a representative tax system: virtually any of the formulas in the following chapters could be incorporated into this overall scheme.

The principal advantage of the block-funding approach is, oddly enough, also its principal defect. Block funding would imply that *aggregate* equalization flows would be independent of changes in the relative financial positions of the provinces. For example, there would be no scope for overall equalization payments to fall if fiscal capacities became more equal across provinces.

Lest the reader feel that this approach to equalization is somewhat far-fetched, it is important to recall from Chapter 2 that the RFPS approach does adopt a GNP growth-rate ceiling for total equalization from fiscal year 1983-84 onward. In this important sense, Ottawa still remains concerned about the potential financial implications arising from an equalization formula under which total payments are determined by the internal workings of the formula. Moreover, one of the principal characteristics of the Australian approach to equalization is that the formula itself is used to allocate shares of a *predetermined* overall transfer; that is, it corresponds quite closely to a 'block-funding' format. The Australian scheme is discussed further in Chapter 9.

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We now turn to options for equalization that embody more fundamental conceptual and quantitative alterations, focusing first on macro approaches to equalization.

7

Macro formulas¹

REPRESENTATIVE VERSUS MACRO APPROACHES

Canadian equalization formulas have always been based upon a representative-tax-system approach, although, as was noted in Chapter 2, the coverage in terms of revenue categories was rather limited prior to 1967. The essence of a representative tax-system approach to equalization is that it measures fiscal capacity with reference to the *actual* taxing practices of the ten provinces taken as a whole. As was outlined in considerable detail in Chapters 4 and 5, a representative tax approach (and, specifically, the RNAS system) generates separate estimates of provincial fiscal deficiencies and excesses for each distinctive type of tax or other revenue source. Equalization payments are determined by weighting the fiscal deficiencies or excesses for each source in accordance with the overall importance of revenues from these sources in aggregate provincial revenues. The internal logic of any representative tax system implies that, over time, existing tax bases have to be refined or redefined in terms of current taxing practices. As provincial taxing patterns move to new areas, these new sources must enter the program. In principle, there is no limit to the number of potential revenue sources, since, as data become refined and more available, existing tax bases can always be subdivided. Thus, alcohol revenues, which formerly comprised a single category, are now separated into three separate tax sources.

In sharp contrast, a macro approach to equalization 'measures provincial fiscal capacities *without reference to the actual tax system of the provinces*, using instead one or more *aggregate* or "macro"

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measures of income or production out of which all taxes, in the final analysis, may be said to be paid' (Department of Finance 1981b, 1).

Although a macro economic formula has never been adopted in Canada, the concept has always lurked in the background of the discussions surrounding equalization. As the Department of Finance discussion paper on macro formulas observes:

[The macro] concept has been studied as far back as 1957 when personal income was used in studies underlying the Atlantic Provinces Adjustment Grants. The matter was studied further in 1965 and 1966. Known then as a 'total income' approach, it was seriously considered as an alternative to the comprehensive representative tax system that was introduced in 1967. (Ibid., 2)

Moreover, since 1967 the RNAS formula has used a macro indicator as a measure of fiscal capacity for some revenue categories. For example, the 1977-82 RNAS approach used a modified version of personal income as the tax base for lottery revenues (revenue category 27) and provincial gross domestic product at factor cost as the tax base for miscellaneous provincial taxes (revenue category 28). In addition to being of considerable interest, these two definitions of a macro base are also incredibly convenient, because later in this chapter we shall rely on them to generate numerical values for a macro-equalization formula.

Finally, it is instructive to note that

since the present equalization formula was introduced in 1977, there has been increased interest in the possibility of moving to a macro-economic formula. There are two reasons for this. First, there has been a substantial enlargement of the macro-income data available. Second, the representative tax system has encountered a number of problems which, it can be argued, could be dealt with more effectively by a macro-economic formula. (Ibid.)

There are, of course, also several disadvantages associated with macro formulas. An assessment of both the pros and the cons of a macro approach is obviously the central aim of this chapter. However, before we can attempt such an exercise, it is necessary to detail the manner

in which a macro approach might operate and to present some estimates of the sorts of equalization flows it would generate.

THE ANALYTICS OF A MACRO APPROACH

The manner in which a macro approach would work can be expressed in a way that should by now be familiar to the reader:²

$$\begin{array}{l} \text{Equalization} \\ \text{for a} \\ \text{given province} \end{array} = \begin{array}{l} \text{total revenues} \\ \text{to be} \\ \text{equalized} \end{array} \left(\begin{array}{l} \text{province's} \\ \text{share of} \\ \text{population} \end{array} - \begin{array}{l} \text{province's} \\ \text{share of} \\ \text{macro base} \end{array} \right) \quad (7.1)$$

However, unlike a representative tax approach, a macro formula would require only *one* of these equations per province. To make a macro-formula operational, two key decisions have to be made. First, what will serve as the macro tax base? Second, what will constitute 'total revenues to be equalized'? Under most equalization formulas, there is also a third decision variable, namely the standard up to which revenues will be equalized. Implicit in the above formulation is the assumption that a *national* standard will prevail; that is, fiscal deficiencies are, in effect, defined with respect to the national average level of the macro base. If one wanted the standard to be 90 per cent of the national average, then one could multiply the entire expression on the right-hand side of the equation by .90, and so on. A further implicit assumption is that all payments will be made from the federal coffers; that is, the scheme is not an interprovincial revenue-sharing program. To put the matter another way, the equalization payments for rich provinces are set equal to zero. Obviously, this aspect could be altered: a macro formula could be converted into an interprovincial revenue-sharing pool. But I shall not deal with this possibility in this chapter.

The intuitive notion underlying a macro approach is quite appealing. A province will receive equalization payments if its share of the macro base, say personal income, is less than its share of Canada's population. This is equivalent to saying that a poor province is one for which personal income per capita is less than the national average level of personal income per capita.

Defining the macro base

From the Department of Finance background paper:

The derivation of the tax base is the most important and difficult part of designing a macro-economic formula. The objective should be to obtain a comprehensive measure of the total potential that is available to each province to tax. Such a measure should not attempt to take account of the actual tax system of the provinces [or it would cease to be a 'macro' approach]. However, it should take account of those incomes, rents, etc. that are potentially available to provinces to tax....

[Thus] in selecting a macro-economic base two decisions have to be taken. First, which of the existing macro-economic indicators provides the best measure of the potential that is available to provinces to tax? Second, should any adjustments be made to such a measure? (Ibid., 7)

Unfortunately, there is no 'best' way to define a macro base. We shall employ two definitions, both of which were utilized as definitions for tax bases under the RNAS. One of these is based on personal income, the other on provincial gross domestic product. Specifically:

Macro base A = Personal income, excluding

- (i) value changes in farm inventory,
- (ii) provincial-local transfers to persons, and
- (iii) federal direct tax withdrawals, consisting of federal income tax on persons (adjusted in the case of Quebec to add back the value of the 16½ point abatement) plus employer and employee contributions to unemployment insurance, the CPP, and the QPP.

Macro base B = Provincial gross domestic product at factor cost.

These two concepts are analytically quite distinct. Moreover, they lead to very different fiscal deficiencies and equalization payments, as will be evident when we turn our attention to Table 7.1. The use of personal income as a macro base leads to smaller fiscal deficiencies, since personal income excludes business income revenues and important items such as royalties, both of which are distributed much more unevenly across provinces than is personal income. Both are incorporated in provincial GDP, macro base B.

The modifications to macro base A deserve some comment. Provincial-local transfers are excluded from the personal income base partly because, if they were included, a province could significantly influence its fiscal capacity measure by modifying its support to persons. Federal direct tax withdrawals are deducted in large part because these funds are not available for provinces to tax. Since the residents of the richer provinces pay proportionally more federal direct tax, deleting these taxes from the base serves to reduce the disparity across provinces and leads to smaller fiscal deficiencies for the 'have-not' provinces.

The GDP base is modified by removing indirect taxes and subsidies; thus the base is GDP at factor cost and not at market prices. If the market price measures were utilized, a province could increase its fiscal deficiency by reducing its sales tax and raising, say, its income taxes. Needless to say, there is no end to the adjustments that could be made to these macro concepts. For example, Davenport (1979) proposes a measure that he refers to as 'adjusted personal income', defined as per capita personal income plus revenues at national average tax rates from corporate profits and natural resources. As the reader will recognize, this definition coincides much more closely with the GDP version of the macro base than it does with the personal income variant. Likewise, the Department of Finance background paper on macro equalization discusses in considerable detail possible alternative refinements.

The position I have taken is that the two above definitions will suffice for illustrative purposes. They have the advantage that data relating to the fiscal capacities associated with macro bases A and B already appear as rows 27 and 28, respectively, of Table 4.2.

Revenues to be equalized

A separate but equally important decision pertaining to the macro formula relates to the set of revenues to be included for equalization. The Department of Finance background paper makes the following observations:

A macro-economic system of equalization can be applied to the same set of revenues as a representative tax system. However, the constraints which inhibit comprehensive coverage with a representative tax system are less applicable

to a macro-economic system. A representative tax system can [and from Chapter 4 does] generate very high 'disparity factors' for certain revenue categories such as natural resource revenues. In recent years these would have driven a fully-expanded representative tax system in Canada to the point where it would have over-achieved the purpose of equalization. In other words, such a system would have made it possible for provinces that receive equalization and impose 'reasonable levels of taxation' to provide levels of public services that would have been 'more than reasonable'. As a consequence, the federal government has found it necessary to curtail the extent to which natural resource revenues are equalized. However, it might not have been necessary to cut back on natural resource revenues if they had been equalized by means of the same measure of fiscal capacity as other categories of revenue—as would be the case with a macro formula. (1981b, 6-7)

The numerical examples that follow show results for three different definitions of revenues to be equalized. The first two examples refer to fiscal year 1981-82; they employ, respectively, the same total as entered the RNAS formula in that year (i.e., \$47,162 million from Table 4.2) and this total plus the excluded portion of the energy rents. The third example is for fiscal year 1982-83 and adopts the comprehensive measure associated with the RFPS formula—essentially, all provincial and local revenues.

With this backdrop, our attention can now be directed to Table 7.1, which presents estimates of equalization utilizing a macro approach.

THE OPERATION OF A MACRO FORMULA

The first two rows of Table 7.1 present fiscal deficiencies and excesses by province for the two definitions of the macro base. As was suggested above, the deficiencies for the personal income concept of the base (macro base A) are quite narrow, certainly considerably narrower than those for the gross domestic product definition of income (macro base B). Ontario is a 'rich' province under both of these measures. This may be one of the principal advantages of a macro formula: it excludes Ontario from equalization by virtue of its internal logic and not by way of specific legislation, as did the RNAS scheme.

TABLE 7.1
Macro equalization scenarios (\$ millions)

	NFLD	PEI	NS	NB	QUE	ONT	MAN	SASK	ALTA	BC	TOTAL
<i>Fiscal year 1981-82</i>											
1. Fiscal deficiencies:											
Macro base A (%) ^a	.90	.14	.62	.74	2.15	-3.31	.15	.07	-.37	-1.08	
Macro base B (%) ^b	.99	.21	1.15	.92	3.78	-1.26	.50	-.37	-4.95	-.96	
2. Equalization payments											
A. Macro base A											
1. 1981-82 revenues ^c	424	66	292	349	1,014	0	71	33	0	0	2,249
2. Adjusted 1981-82 revenues ^d	456	71	314	375	1,091	0	76	36	0	0	2,419
B. Macro base B											
1. 1981-82 revenues ^c	467	99	542	434	1,783	0	235	0	0	0	3,560
2. Adjusted 1981-82 revenues ^d	502	107	584	467	1,918	0	254	0	0	0	3,832
C. Actual RNAS equalization, 1981-82 ^e	431	103	512	414	2,306	(350)	392	0	0	0	4,160
<i>Fiscal year 1982-83</i>											
1. Equalization 1982-83											
Macro base B											
A. 1982-83 provincial revenues ^f	584	124	679	543	2,233	0	295	0	0	0	4,458
B. 1982-83 provincial-local revenues ^g	696	148	808	647	2,659	0	351	0	0	0	5,309
2. RFPS equalization 1982-83 ^h	522	124	606	490	2,467	0	349	0	0	0	4,558

^a Personal income base, from revenue category 27, Table 4.2.

^b Provincial GDP base, from revenue category 28, Table 4.2.

^c Equal to revenues equalized for RNAS formula in 1981-82, i.e., \$47,162 million from Table 4.2.

^d Equals *c* above plus the remaining 50 per cent of energy revenues, i.e., \$50,742 million.

^e From Table 4.3.

^f Revenues as defined for *d* above, but for 1982-83, i.e., \$59,064 million (source: Department of Finance, March 1982).

^g Equals *f* above plus local revenues as covered in the new RFPS formula (i.e., \$70,347 million), Table 12.1 below.

^h Reproduced from Table 12.4 below. These RFPS flows are formula-based and do not incorporate the transitional guarantees.

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Some anomalies persist, however. Saskatchewan is a 'have-not' province for macro source A but a 'have' province for macro base B.

Equalization for fiscal year 1981-82

The equalization flows for fiscal year 1981-82 are generated under two assumptions relating to the amounts of revenues eligible for equalization. The first of these is simply the amount of revenues that entered the RNAS formula for 1981-82 (\$47,162 million). Equalization payments for this definition of revenue appear in rows 2.A.1 and 2.B.1 of Table 7.1. The second revenue definition grosses up this figure by including the resource revenues at 100 per cent rather than 50 per cent; it also assumes a value for revenues from Crown leases in 1981-82 of \$700 million. This revenue total comes to \$50,742 million. The figures for this version appear in rows 2.A.2 and 2.B.2. For comparison purposes, the actual equalization payments for 1981-82 appear in row 2.C.

Now to the results. It appears convenient to proceed in summary form:

- 1 Equalization flows arising under the personal income definition of the macro base (macro base A) are much smaller than were the actual equalization flows, so much so that the analysis will not focus further on this version of the macro base.
- 2 Given the same total amount of revenues that entered the 1981-82 equalization program, the payments arising under the GDP concept of income (macro base B) are also lower than actual 1981-82 payments (i.e., \$3,560 million versus \$4,160 million).
- 3 However, for the Atlantic Provinces as a whole, equalization flows under macro base B are *higher* than actual 1981-82 flows. They are slightly smaller for Prince Edward Island but considerably larger for the other three provinces (compare rows 2.B.1 and 2.C of Table 7.1). The big losers under macro base B are Quebec and Manitoba.
- 4 These distributional implications are exactly what one would expect. Since Quebec and Manitoba are closer, in percentage terms, to the national average level of provincial GDP, their fiscal deficiencies relative to their populations are smaller than those of the Atlantic Provinces. These small deficiencies apply to *all* revenues entering the macro formula, whereas under the RNAS version Quebec

and Manitoba are able essentially to claim their population shares of the energy revenues entering the formula.

5 Thus, *even if the overall levels of equalization payments were the same under the GDP macro approach and the RNAS approach, there would still be very significant distributional implications resulting from a macro approach.* The Atlantic Provinces would receive substantially more in equalization than they did under the RNAS approach, while Manitoba and particularly Quebec would receive substantially less. Row 2.B.2, which brings 100 per cent rather than 50 per cent of the energy revenues into the formula, does produce an overall flow of equalization that is not far from the actual 1981-82 level. Therefore, to the extent that one views the GDP macro approach as the appropriate approach to equalization, the RNAS system probably over-equalized in the aggregate and at the micro level favoured Quebec and Manitoba relative to the Atlantic Provinces.

Equalization for fiscal year 1982-83

The lower half of Table 7.1 presents a comparison of the macro and RFPS approaches for 1982-83. Only the numbers for the GDP version of the macro formula are shown. The fiscal deficiencies for 1982-83 are virtually the same as those for 1981-82 (at least according to estimates prepared by the Department of Finance 1982a, 83). The first set of macro equalization figures embodies the equalization of all provincial revenues at 100 per cent (i.e., total revenues from all 30 of the old RNAS categories updated to reflect their values for 1982-83). The second adds in roughly \$11 billion of local revenues (principally municipal property taxes) and corresponds to the revenues now eligible for equalization under the RFPS formula. The final row of the table provides the equalization estimates for 1982-83 under the new formula.

A few words are probably in order concerning these RFPS equalization flows. Relative to 1981-82, the Atlantic Provinces receive hefty percentage increases, Quebec receives a smaller percentage increase, and Manitoba's equalization plummets. Despite the fact that the overall amount of revenues eligible for equalization has literally mushroomed (\$47,162 million in 1981-82; \$70,347 million in 1982-83), the introduction of the five-province standard has

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increased overall flows only slightly. Indeed, compared with the RNAS system, the RFPS approach *tilts the distribution in much the same way as does a macro formula*. This should not be surprising, given that resource revenue deficiencies are much reduced under the RFPS and that in effect more importance is placed on provincial incomes relative to the national average. All of this will be treated in considerable detail in Part VI.

For present purposes, the significant thing to note is that when the same overall revenues are allowed to enter the macro and RFPS formulae, the macro approach now generates *greater* equalization flows than does the actual equalization program. However, the previous distributional pattern still holds in the sense that if overall revenues entering the macro formula were scaled down to generate aggregate flows roughly equivalent to the RFPS aggregate, the Atlantic Provinces overall would fare better under the macro approach and Quebec and Manitoba would fare worse.

This completes the brief empirical exercise relating to the implications of a macro approach to equalization.³ The concluding section of this chapter focuses on the advantages and disadvantages of a macro approach to equalization.

THE ADVANTAGES AND DISADVANTAGES OF A MACRO APPROACH⁴

Simplicity

Compared with the RNAS approach, a macro equalization program *appears* to be a paragon of simplicity. There is no need to classify revenues according to their various categories and no need to sort out the complications of defining some thirty-odd tax bases. Moreover, a macro formula is also simple in the sense that it is easy to comprehend.

However, this simplicity may be more apparent than real. The derivation of an acceptable macro economic tax base is likely to be a *very complex and controversial exercise*, especially if an attempt is made to refine the definition of an aggregate such as provincial GDP. What is likely to result from the introduction of a macro approach is a substitution of one type of complexity for another.

Comprehensiveness of coverage

Relative to the RNAS system, a macro formula allows a more comprehensive coverage of the revenues being equalized. It does this because it generates smaller equalization flows for any given set of aggregate revenues. The flows are smaller largely because the revenues for the energy sources are equalized not in terms of the fiscal deficiencies associated with these revenue sources but rather in terms of the much narrower deficiencies arising from the macro base. Thus there is no need to equalize only 50 per cent of resource revenues and no need to place a resource cap on the program. It is even possible to include all local revenues as well as provincial revenues with no fear that the overall equalization program will become prohibitively expensive.

While a macro formula would permit more comprehensive coverage than did the RNAS approach, it is not superior in this respect to the RFPS formula. The new version of equalization also permits a more comprehensive coverage than did the RNAS approach, and, as noted in Table 7.1, it does this at a cost in terms of overall flows that is even less than the cost that would result from a macro formula.

The role of Ontario

A macro approach would exclude Ontario from being a recipient province by virtue of the internal logic of the formula and not, like the RNAS approach, on the basis of an external restriction. Indeed, the RNAS version fell back on a 'macro' rationale in order to exclude Ontario (i.e., the personal income override), and thus a macro formula can be said to generalize the approach by using a measure of income as the determinant of equalization for *all* provinces. Once again, this rationale for a macro formula does not apply with respect to the RFPS approach, which also excludes Ontario by the internal workings of the formula.

Durability and sensitivity

A macro formula is likely to be more durable than an RNAS system. The many unilateral and arbitrary changes that were made in the RNAS version in response to rapid growth in particular revenue sources are not likely to be necessary under a macro approach. This is

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so because such an approach is not sensitive to the *source* of an increase in the revenues entering the formula—all sources are treated uniformly.

However, this advantage is offset by another source of sensitivity—the sensitivity of payments to any variations in the macro tax base itself. For example, any revision in the measure of provincial GDP would have a profound effect on the formula, since the fiscal deficiencies are multiplied by the aggregate of provincial revenues. Under an RNAS approach, a change in any given tax base affects equalization flows only for that tax base.

Disincentive effects and moral hazard

In Chapter 5, much was made of the fact that under the RNAS approach a province could increase its equalization flows by following strategic behaviour in raising revenues—for example, by raising taxes on bases for which it had a large fiscal deficiency or by substituting away from tax sources excluded from the formula. Under a macro approach, provinces would be less likely to engage in such strategic behaviour, since all tax revenues would be treated in an identical fashion for purposes of the formula.

However, it is unlikely that such behaviour would be completely eliminated. While it is true that provinces would no longer be as concerned about the distribution of their revenues across tax sources, there would be a heightened concern about the definition of the tax base. Indeed, I have defined the GDP macro base to be net of indirect taxes largely in order to avoid the moral-hazard problem. If the base were GDP at market prices, provinces would have a substantial incentive to decrease indirect taxes and raise direct taxes, thereby reducing their GDP bases for purposes of the formula. Thus, instead of eliminating the role for provincial strategy, a change from an RNAS to a macro regime would probably only divert attention from the tax structure to the tax base.

Relation to actual taxing practices

From the Department of Finance background paper:

The most fundamental disadvantage of a macro-economic equalization formula is that it does not relate to the real world

of what it is that provinces actually tax but rather to what they potentially have available to tax. In the real world, provinces obtain sizeable revenues from oil and gas but not from iron and coal, from alcoholic beverages but not from Coca Cola, from tobacco and lotteries but not from other forms of amusement, from gasoline and diesel fuel but not from electricity, from real property but not from personal property, etc. The representative tax system recognizes these differences because it, in effect, weights fiscal capacity in accordance with the actual taxing practices of the provinces. These practices are designed to capture economic rents wherever they exist and to take advantage of the spending priorities of society by taxing most heavily those goods and services for which there is a relatively inelastic demand. Since macro concepts do not recognize these distinctions, they neglect the uneven provincial distribution of many of the things that are taxed heavily and do not provide a sensitive measure of fiscal capacity. (1981b, 13)

While this is a very strong criticism, it is clearly part of the trade-off that would be inherent in adopting a macro approach.

Relation to regional disparities

In principle, equalization has to do with the provision of reasonably comparable public goods at reasonably comparable tax rates and not with the existence of economic disparity across the provinces. Yet, over the years, several federal officials have lamented the fact that equalization transfers have at times risen quite rapidly in periods when there has been evidence of a decline in the degree of regional disparity. *One feature of a macro formula, particularly one based on some notion of provincial GDP, is that a narrowing of provincial income disparities will lead to a fall in equalization.* This will be a desirable feature to those who prefer to view equalization as being somehow bound up with regional disparities rather than being linked more narrowly to access to provincial revenues. The RNAS scheme was rather schizophrenic with respect to this issue—the formula was being driven by relative provincial revenue access but Ontario was excluded on the basis of its place in the provincial disparity spectrum.

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Resources and the macro formula

There are a whole host of issues that a macro formula does not address. Principal among these issues is the relationship between resource revenues and the equalization formula. The theoretical analysis in Chapter 3 pointed in the direction of special treatment for resource rents. A macro approach sweeps all of this under the rug. But so did the RNAS system and, to an even greater degree, so does the new equalization formula.

CONCLUSION

This completes the analysis of a macro approach to equalization. It should be recalled that the particular version of a macro approach utilized for the numerical examples was quite arbitrary—provincial GDP at factor cost is only one of a myriad of macro bases that could be employed.

Moreover, the implicit assumption underlying the analysis in this chapter was that there should only be *one* tax base in a macro approach. However, in principle one can envision a system in which there are two or more macro bases. For example, in the next chapter we shall outline one version of a two-tiered system of equalization. The literature relating to this approach has traditionally split up the equalization program into two components—one relating to resource revenues and one relating to nonresource revenues. Within such a system it is entirely conceivable to employ two macro bases, one for each sector. And so on.

Much of the rationale for a macro approach stemmed from the difficulties, both real and perceived, that were associated with the RNAS system. Now that Canada has a new equalization system, the alternative of a macro formula must be viewed from the new perspective. While much of this analysis has to await the discussion in Part VI, it should be noted here that the RFPS formula achieves many of the same goals and is subject to many of the same criticisms as the macro approach.

I now turn an analysis of those forgone options that were geared specifically to the issues relating to the equalization of resource revenues.

NOTES

- 1 Much of this chapter is adopted from an excellent Department of Finance Discussion Paper (1981b).
- 2 There are many alternative ways in which a macro formula might be specified. While equation 7.1 represents only one of these approaches, it is probably the one that has attracted the most attention.
- 3 There have been other attempts to show the implications of the operations of a macro formula. See, for example, Ontario (1980).
- 4 Many of the points cited below are adopted from the Department of Finance background paper (1981b).

8

Resource revenues and equalization: two-tier systems and interprovincial rent-sharing pools

The theoretical overview of equalization payments in Chapter 3 pointed very clearly to the existence of resource rents, and particularly their uneven geographical distribution, as the principal source of differential net fiscal benefits (NFBs) across provinces. It was made equally clear that the way to fully equalize these differential NFBs is via some sort of interprovincial revenue-sharing pool—that is, via direct transfers from the high-NFB to the low-NFB provinces. On the surface, it might appear that the present equalization scheme could fully equalize these differential NFBs if the standard of equalization were defined in terms of richest province—in other words, if all provincial fiscal capacities were brought up to the level of Alberta's fiscal capacity. However, in addition to being prohibitively expensive in terms of its demands upon the federal treasury, this approach would not in fact constitute a solution to the problem. This is so because the provincial per capita distribution of the *sources* of Ottawa's revenues would not, except by accident, coincide with the distribution of provincial per capita NFBs. This is, of course, an aspect of the 'funding inequity' discussed in Chapter 5.

The purpose of this chapter is to focus on several of the alternative approaches to interprovincial sharing that have been put forward in recent years. The first of these is the so-called 'two-tier' approach to equalization proposed by myself and Glen Copplestone (1980). An alternative approach is the interprovincial rent-sharing scheme suggested by Helliwell and Scott (1981). A third rent-sharing scheme, proposed by Gainer and Powrie (1975), differs from the previous two alternatives in that it is not, strictly speaking, an interprovincial revenue-sharing pool. This proposal is important not only in its own

right, but also because it addresses the problems posed by Section 125 of the British North America Act. Finally, the Boadway-Flatters approach (1982), while not dealt with in detail in this chapter, also incorporates the notion of a 'net' (direct transfers between provinces), rather than a 'gross', equalization program.

Wherever possible, the discussion and analysis of these various alternatives will be accompanied by an attempt to measure their quantitative implications for equalization flows.

Several points must be clarified at the outset. First of all, part of the rationale for interprovincial revenue- or rent-sharing schemes arises from the fact that resources generate revenues for individual provinces—revenues that Ottawa does not have access to. However, thanks to the National Energy Program and the subsequent bilateral agreements between Ottawa and several provinces, the federal government now enjoys a much larger slice of energy revenues than it did formerly. If one could assume that a portion of these resource-generated federal revenues were earmarked for financing the energy-related equalization flows, then the arguments for interprovincial sharing based on the funding inequity would be muted. There would, however, still remain an efficiency rationale for province-to-province transfers.

Second, the very nature of an interprovincial sharing system is that some provinces contribute to the pool and some draw from the pool. The role of an equalization formula in this context is to determine the level of contributions and of withdrawals. However, restricting the focus to actual revenues is likely to lead to too narrow a conception of inputs and outflows. For example, the largest source of 'equalization' of NFBs from energy revenues is the low domestic price for energy. The royalties lost to the producing provinces as a result of this low price should be counted as a 'contribution' and the corresponding benefits to consumers in all provinces should be viewed as a 'withdrawal'. As the domestic price nears the world level, these transfers will naturally diminish. Nonetheless, as the data in Chapter 5 indicate, the dollar value of these transfers can be immense. Thus they ought to be incorporated in any interprovincial revenue-sharing program, even though not all of the empirical estimates of the alternatives evaluated in this chapter will take them into account.

Finally, interprovincial sharing as an approach to equalization has implications that transcend the objective of minimizing differences in NFBs across provinces. In particular, equalizing NFBs via a federally run program will lead to a much larger overall government sector than will a scheme that equalizes NFBs by means of an interprovincial revenue-sharing pool. This is so because in the latter case *existing revenues* are transferred between jurisdictions, whereas in the former case *new revenues have to be raised* in order to bring up the fiscal capacities of the low-NFB provinces. Unfortunately, this issue—the manner in which the equalization program is likely to affect the overall size of government—is scarcely ever mentioned in the analytic work on equalization. It will not be highlighted in the present analysis either, except insofar as the point recurs that interprovincial schemes can attain the efficiency and equity goals of equalization without resorting to an overall increase in the size of government and in the role of government in the economy.

With these few caveats as a backdrop, I turn to the analysis of alternative approaches to dealing with resource revenues, beginning with two-tier systems.

TWO-TIER SYSTEMS

The rationale

The principle underlying a two-tier system is rather straightforward. There would be two parts to the equalization formula. The first part, or first tier, would be 'business as usual' in the sense that the RNAS equalization formula would apply to a selected subset of the revenue categories. For the revenue categories in this first tier, all provinces' fiscal capacities would be brought up to, say, the national average level¹ and there would be no direct payments by provinces into the scheme; that is, it would be funded from Ottawa's consolidated revenues. Thus, the first tier would be effectively identical to the RNAS scheme outlined in Chapters 4 and 5.

The second tier would take the form of an interprovincial revenue-sharing pool. To anticipate the later analysis, the revenues equalized under this second tier would consist, essentially, of the resource revenues. Resource-rich provinces would contribute a portion (say, one-third) of their per capita resource revenues in excess of the national average per capita level, and resource-poor provinces

would draw this same proportion for any per capita deficiency. By design, the pool would be self-financing, and the scheme could be administered either by Ottawa or by the provinces.

There is, of course, an element of arbitrariness in deciding which revenue categories should be allocated to the second tier. One decision rule might be that Ottawa should undertake to equalize only those revenue categories that it shares jointly with the provinces. This would put personal and corporate income taxes in the first tier. The approach adopted by Copplestone and myself in our study was to include all but the resource categories (renewable as well as nonrenewable) in the first tier. Our rationale was that, by and large, the distribution of nonresource revenues across provinces does not differ much from the distribution of Ottawa's sources of revenues. Consequently, this approach would ensure a rough-and-ready 'equity' in the funding of the first tier of the program. For example, suppose that retail sales revenues rose in Ontario. Equalization payments would increase. However, Ottawa's revenues from Ontario would likely also increase, since the retail sales increase would likely be generated by a rise in Ontario's personal income. Thus the fact that Ontario was the source of the increased equalization flows would be matched by the fact that a greater share of Ottawa's revenues originated from this province. However, the breakdown is nonetheless an arbitrary one.

Before we proceed to the second tier, it is worth noting that one could approach the first tier in terms of a 'macro' formula. The equalization flows that arose from the application of a macro formula to the nonresource categories would differ little from the flows that arose from the application of an RNAS approach since (a) revenues to be equalized would remain the same (i.e., the sum of the provincial revenues from the nonresource categories) and (b) the fiscal deficiencies that arose from a macro base would not differ much from the aggregate *average* deficiencies for the nonresource revenues that arose from an RNAS approach, as was evident from the analysis in the previous chapter.

The second tier

In order to determine payments into and withdrawals from the second tier, we aggregate all the resource revenues into a single category and

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define entitlements in terms of the excess or shortfall of a province's per capita resource revenue compared with the national average per capita resource revenues. Notationally,

$$\frac{RE_i}{P_i} = \alpha \left(\frac{RR_c}{P_c} - \frac{RR_i}{P_i} \right), \quad (8.1)$$

where

$$\frac{RE_i}{P_i} = \text{per capita resource entitlements for province } i,$$

$$\frac{RR_c}{P_c} = \text{the all-province average for per capita resource revenues (subscript } c \text{ denotes Canada or the 'all-province' total),}$$

$$\frac{RR_i}{P_i} = \text{per capita resource revenues for province } i,$$

$$\alpha = \text{the equalization parameter—that is, the fraction of the per capita excess or deficiency that is subject to equalization (another way to view } \alpha \text{ is as the pay-out or pay-in ratio).}$$

Ideally, all resource revenues and/or rents would enter the formula, including the profits arising from facilities such as Quebec Hydro and Ontario Hydro and the rents from these facilities that are returned to their customers in the form of low electricity prices. In the empirical exercise that follows, however, the analysis will be restricted to those revenue categories that enter the present equalization formula (except that 100 per cent of resource revenues will enter the formula and not the 50 per cent that entered it in the later years of the RNAS program). Moreover, no attempt will be made to allow for the fact that the energy-producing provinces are already sharing their wealth with the rest of Canada via the low domestic price for energy. Thus the quantitative results will significantly *overrepresent* the true share of 'total' resource revenues that accrue to the fossil-energy-producing

provinces. Some estimates of equalization based on a more comprehensive definition of resource revenues will be presented later in the context of the analysis of interprovincial revenue-sharing pools.

There is a second point that deserves mention. In principle, the resource revenues that enter the formula ought to be standardized for tax effort. Suppose that one is able to obtain estimates of the 'true' rent potential of each resource deposit across the provinces. It would appear to be appropriate to enter into the formula only those potential revenues represented by the application, by source, of some 'average' tax rate to the tax base. Any additional revenues collected by a province because it taxes resources in excess of their standardized rates ought in principle to be excluded from the formula. The numerical examples that follow ignore this consideration. They assume, implicitly, that all provincial governments are revenue maximizers—which is clearly not the case, since some prefer to allocate the rents to their citizens (e.g., in the form of lower prices for energy) rather than collect these rents in the form of government revenues.

I have identified these departures from principle at the outset in order to alert the reader to the fact that the estimates given below are very speculative indeed—so much so that their net impact may well be to confuse rather than inform. However, it is important to recognize that the existing equalization program also overlooks most of the considerations I have mentioned.

Making the two-tier system operational: some estimates

Table 8.1 presents data relating to the manner in which a two-tier equalization system might work. The data in the table relate to fiscal year 1982-83.

Column 1 focuses on the first tier. Included in this tier are revenue categories 1 through 14 and 24 through 29 from the Chapter 4 classification of revenues. These revenues are equalized up to the national average or all-province standard. Aggregate equalization payments for the first tier sum to \$3,409 million. This figure represents a saving of roughly \$2 billion over the equalization total that would have been generated under a continuation of the RNAS approach for 1982-83 (\$5.3 billion from Table 12.5 in Chapter 12).

TABLE 8.1
Two-tier system (\$millions, 1982-83)

Province	First tier ^a	Second tier				Allocating Ottawa's savings / (for $\alpha = \frac{1}{3}$)		
		Entitlements		Equalization payments			Total equalization flows	
		$\alpha = .2$	$\alpha = \frac{1}{3}$	$\alpha = .2$	$\alpha = \frac{1}{3}$			
NFLD	435.6	34.8	57.9	34.8	57.9	470.4	493.5	22
PEI	92.6	10.0	16.6	10.0	16.6	102.6	109.2	5
NS	428.2	67.8	113.1	67.8	113.1	496.0	541.3	39
NB	360.6	52.3	87.1	52.3	87.1	412.9	447.7	31
QUE	1,691.4	496.3	827.3	496.3	827.3	2,187.7	2,514.7	380
ONT	-722.4	667.1	1,111.9	0.0 ^d	389.5 ^d	0.0	389.5	625
MAN	279.4	74.1	123.5	74.1	123.5	353.5	402.9	58
SASK	121.2	-88.3	-147.2	44.9 ^e	-98.6 ^e	-44.9	-98.3	54
ALTA	-1,859.1	-1,358.7	-2,264.6	-690.4 ^e	-1,516.4 ^e	-690.4	-1,512.7	192
BC	-827.4	44.6	74.3	0.0 ^d	0.0 ^d	0.0	0.0	205
TOTAL	3,409.0 ^b	1,447.0 ^c	2,411.7 ^c	735.3	1,615.0	4,023.1 ^g	4,898.8 ^g	1,611

^a Obtained by applying the RNAS approach to revenue categories 1-14 and 24-29 for revenue estimates for 1982-83. Note that this brings all provinces up to the national average level for these revenue categories. These figures do not quite correspond to the RNAS figures in Table 12.6 of Chapter 12 (because of source 33 in the latter), but this makes very little difference in the overall figures.

^b This total refers to the positive entries only (i.e., it excludes Ontario, British Columbia, and Alberta).

^c This is the sum of the positive entitlements (or the sum of the negative entitlements). Overall the entitlements will sum to zero.

^d Reflects the assumption that provinces will receive payments from the second tier only when their positive entitlements from this tier exceed any negative entitlements (indicating a 'rich' province) from the first tier.

^e The contribution levels for the rich provinces to the second tier have been scaled down proportionally so as to equal the total value of positive entitlements. In turn, the positive entitlements in columns 4 and 5 have been reduced from the column 2 and 3 figures in accordance with note ^d above.

^f That is, the difference between the total figure in columns 7 and 1 allocated across provinces in accordance with the provincial sources of Ottawa's revenue as shown in Row A.1 of Table 5.1.

^g This is the total for the receiving provinces only; that is, it does not net out the contributions into the second tier by Saskatchewan and Alberta.

Alternative ways of dealing with this federal windfall will be dealt with below.

Columns 2 and 3 present estimates of equalization entitlements arising from the second or natural-resource tier. These entitlements are derived from applying the formula in equation 8.1 to the revenue data relating to fiscal year 1982-83. The equalization parameter, α (i.e., the pay-in and withdrawal ratio), is 20 per cent in column 2 and $33\frac{1}{3}$ per cent in column 3. Since the second tier is self-financing (i.e., the entitlements sum to zero), the totals associated with these columns relate only to the positive (or negative) equalization entitlements. With $\alpha = \frac{1}{3}$, payments equal \$2,411.7 million. Given the resource revenues associated with the current equalization formula, only two provinces—Saskatchewan and Alberta—contribute funds to the second tier; the remaining provinces are beneficiaries.

Columns 4 and 5 convert these equalization entitlements into equalization payments. An important characteristic of the two-tier approach developed by Copplestone and myself is that the two tiers are *not* deemed to be independent of one another. What this means is that a province which has a positive entitlement (is 'poor') for the second tier will receive payments *only for the portion of this entitlement that exceeds any negative entitlement associated with the first tier*. Consider Ontario, for example. With $\alpha = .2$, Ontario's second-tier entitlement is \$667.1 million, and it is \$1,111.9 million with $\alpha = \frac{1}{3}$. However, it is a 'rich' province for the first tier: from column 1 its negative entitlement is nearly three-quarters of a billion dollars. By the very nature of the first tier, Ontario does not contribute this amount to the funding of the program. Hence, for $\alpha = .2$ Ontario would not receive any equalization from the second tier (see column 4), since its positive second-tier entitlement is less than its negative first-tier entitlement. For $\alpha = \frac{1}{3}$, however, Ontario would be eligible to receive \$389.5 million, the amount by which the positive entry in column 3 exceeds the negative entry in column 1.

British Columbia has positive entitlements in columns 2 and 3, but in neither case do they exceed its negative entitlements for the first tier. Hence British Columbia's equalization payments for the second tier (columns 4 and 5) are set to zero.

As a result of these rollbacks, the positive flows for Ontario and British Columbia in columns 2 and 3 are scaled down in columns 4 and 5. Likewise, the payments into the second tier by Saskatchewan and

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Alberta are also scaled down proportionally. Of the roughly \$1.6 billion in second-tier flows in column 5, over \$1.5 billion would come from Alberta and just under \$100 million from Saskatchewan.

Columns 6 and 7 sum the equalization flows for both tiers. With $\alpha = .2$, aggregate payments to recipient provinces are approximately \$4 billion; with $\alpha = \frac{1}{3}$, the payments are \$4.9 billion.

As will be documented in Chapter 12, equalization flows for 1982-83 under the assumption that the RNAS approach was still in force would be approximately \$5.3 billion. This total is somewhat larger than the two-tier total in Table 8.1. However, it is important to recognize that there are some additional savings in Table 8.1 that have gone unallocated. Specifically, Ottawa's portion of the funding amounts to only \$3,288 million; the remaining \$1,611 million (for $\alpha = \frac{1}{3}$) is provided by Saskatchewan and Alberta. The figures in column 8 of Table 8.1 assume that Ottawa reduces its tax take from the provinces by an equivalent amount (i.e., by \$1,611 million). The provincial 'savings' are derived by applying the estimates of the provincial shares of Ottawa's revenue (from row A.1 of Table 3.1) to the \$1,611 million total.² Note that these dollar savings accrue to provincial *residents* and not to provincial governments. Nonetheless, the sum of the column 7 and column 8 figures for any province corresponds quite closely to what the province would receive under a continuation of the RNAS system. Note that the big 'winner' would be Ontario, to the tune of roughly \$1 billion dollars.

Two-tier systems: an evaluation

Among the advantages that could be claimed for a two-tier system are the following:

- 1 It addresses the 'funding inequity' inherent in the old equalization formula. This inequity arose from the circumstance that the source of the escalation in equalization payments differed geographically from the source of the revenues Ottawa exacted to cover the increased payments. Specifically, the rising revenues of the energy-producing provinces, in particular Alberta and Saskatchewan, generated the increased equalization whereas Ontario residents were called upon to foot nearly 40 per cent of the additional equalization bill. The funding inequity was aggravated by the 'personal income override' that

precluded Ontario from being a recipient of equalization under the RNAS program.

2 This general point can be phrased somewhat differently: the funding of equalization is more in line with 'ability to pay' under a two-tier system than it was under the RNAS. As John Helliwell once remarked, if interprovincial revenue-sharing pools for resource rents do not make sense, neither does the United Way.

3 The version of a two-tier system that I have described here allows positive second-tier flows only when they exceed the value of any negative first-tier entitlements. Other two-tier systems treat the tiers independently and would, therefore, involve considerably larger transfers from the coffers of the resource-rich provinces to Ontario.³ Economics provides little in the way of guidelines as to which approach is to be preferred. Indeed, the revenue-sharing pools dealt with below implicitly, if not explicitly, separate the sharing of resource rents and the formal equalization program. However, the integration of the two tiers would be more palatable to the resource-rich provinces than their separation (although probably not so much more palatable that Alberta and Saskatchewan would agree to go along with such a proposal—a point that will be discussed below).

4 A two-tier system is more consistent with the efficiency arguments for equalization than is an RNAS approach. This is so because the second tier effectively amounts to a direct transfer of NFBs from high-NFB provinces to low-NFB provinces. Thus, for an equivalent amount of equalization payments, the variation in post-equalization NFBs will be narrower under a two-tier system than under an RNAS approach. Indeed, under the RNAS program there existed the possibility that Alberta-Ontario NFB differentials might be *exacerbated*.⁴

5 A related point is that since the second tier of the system transfers existing revenues across jurisdictions rather than requiring that *new* revenues be raised, as was the case under the RNAS system, it should lead to a smaller overall government sector.

6 A final possible advantage of a two-tier system is that it would generate a considerable saving for the federal government. In the pre-NEP days, when the two-tier system was initially proposed, it was apparent to many observers that the federal government did not have access to sufficient energy revenues.

In general, therefore, it was and probably still is possible to make a reasonably strong case in favour of a two-tier system. Indeed, in his appearance before the Parliamentary Task Force on Federal-Provincial Fiscal Arrangements, Minister of Finance Allan MacEachen made the point that

a number of Canadian economists, from both Eastern and Western Canada, have suggested a somewhat different approach, which would involve the sharing or 'pooling' among provincial governments of a portion of their natural resource revenues. This is a rather novel idea in the Canadian context, where distribution on a national scale has always been seen to be the responsibility of the federal government. But it would be consistent with the principle of equalization which might soon be entrenched in the Constitution and which would commit the provincial legislatures as well as Parliament. It might also be noted that there is a precedent for a program of this nature, since the revenues of the member states of the Federal Republic of Germany are essentially equalized by means of transfer payments among state governments. (MacEachen 1981, 17)⁵

There are, of course, also several problems associated with a two-tier system. Some of them are the mirror images of the various 'advantages' enumerated above. More serious perhaps is the fact that, for all intents and purposes, the second tier would be financed by Alberta. Why would or should this province agree to such an arrangement? At the time that the proposal was put forward, in the late 1970s, my answer to this question was as follows. First, in one way or another, the federal government was going to get a larger slice of the energy rents. Hence, Alberta could give up some resource revenues and at the same time gain considerable credit in the eyes of the rest of Canada by undertaking the financing of such a second tier. Second, if Alberta agreed to share resource revenues with the rest of the provinces it might find them more receptive to arguments for raising the domestic price of energy. Third, in twenty years the major source of resource revenues might be, say, water power rentals rather than fossil fuel rents, in which case Alberta might be on the receiving end of these interprovincial rent transfers. Finally, and more

generally, if the provinces desired an increased degree of power within the federation, they were going to have to shoulder a corresponding increase in responsibilities.

Since the advent of the National Energy Program these arguments, particularly the first one, have less force. Indeed, one important problem that the two-tier system is designed to address, namely the funding inequity associated with equalization, has been ameliorated by the substantial increase in the federal share of energy rents associated with the NEP provisions. However, to the extent that the two-tiered system is regarded as a means of equalizing the differential NFBs arising from energy revenues, its rationale remains intact in spite of the National Energy Policy.

There is another criticism that can be levelled at any two-tier scheme, namely that the notion of a funding inequity is fundamentally misplaced since it arises from looking at only the equalization aspect of the overall interprovincial resource-revenue picture. An equally important aspect is the interprovincial sharing of rents that arises from the low domestic price for energy. From Table 5.1, Alberta's forgone annual revenues prior to the introduction of the NEP were \$361 million for each dollar of difference between the domestic and world energy prices. Moreover, the benefit to consuming Canadians was on the order of \$900 million for each dollar of shortfall in the domestic price. Given that Canada's price was at times nearly \$20 below the world price, the benefits to consuming Canadians far exceeded the dollar transfer under the equalization program. More to the point, Alberta's forgone revenues were also larger than equalization flows. In this sense, the energy-producing provinces were *already* transferring enormous 'revenues' to the rest of Canada. This point is well taken. In our original article, Copplestone and I argued that either (a) these transfers be taken into account when calculating the second-tier contributions or (b) the two-tier system be implemented only once Canadian prices reached to world levels.

A related point concerns the particular version of the two-tier system embodied in Table 8.1. This scheme incorporates a rather narrow view of resource rents—specifically, it includes only rents that are actually collected and ignores rents that are passed on to consumers in the form of lower prices (e.g., hydro rents). Once again, most, if not all, analysts who argue for revenue-sharing recognize this point. The difficulty lies in measuring these potential or uncollected

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rents, as will become rather obvious in the estimates that appear later in the chapter.

I shall have more to say about two-tier systems in the conclusion to this chapter. In addition, the appendix to the chapter will briefly discuss the West German equalization system, which does incorporate a version of the two-tiered scheme. For the present, let us consider interprovincial revenue-sharing pools as an alternative to the existing equalization arrangements.

INTERPROVINCIAL REVENUE-SHARING POOLS: THE HELLIWELL-SCOTT APPROACH

The rationale

In focusing on the interprovincial revenue-sharing scheme proposed by John Helliwell and Anthony Scott, I shall rely primarily on their own words. In proposing interprovincial revenue-sharing as an alternative to the current scheme, they emphasize both the funding inequity referred to in the previous section and the need, on efficiency grounds, to reduce the differences in NFBs across provinces. Moreover they add a third rationale, namely the shift in vertical fiscal imbalance:

If we are in a situation where the federal government has better fiscal resources in a vertical sense [i.e., *vis-à-vis* the provinces], and some regions have poor fiscal resources, then it seems quite natural that we should have a system of the kind we have had in the past, financed by the federal government with payments to the poorer regions. What we see happening as we look at budget balances over the last decade is that the vertical imbalance has changed rather dramatically. It is no longer the case that with equivalent pressures on...tax payers the federal government has a burgeoning surplus which it is able to distribute equally to those regions that are worse off: on the contrary, the major power to help the poorest regions is now located in other regions such as in surpluses at the provincial level in some provinces. (Testimony in House of Commons 1981, 17:7)

While Helliwell and Scott recognize the special problems associated with resource revenues, in the final analysis they argue that the

interprovincial revenue-sharing pool should apply to *all* provincial revenues and not just to those related to resources:

We propose that the provincial governments collectively establish an interprovincial revenue-sharing system. It would be under their own direction....

Should the provinces share only their resource revenues?... There are several reasons for treating resources and their finances differently. As we have seen, their inclusion in the present formula has endangered the precision of equalization. Taking them out would remove the need to tinker with what should be a simple system. Furthermore, resources and their revenues belong to the provinces. The power to set prices and royalties for their use brings more than money: it also provides an effective instrument for guiding resource exploitation. The timing and method of resource exploitation, coupled with provincial powers over local transport and infrastructure, can also guide regional economic development. This is not a trivial provincial function, when resources are vulnerable and exhaustible, their prices and quantities uncertain, and their locations unpredictable. Finally, resources can produce true rents after all necessary profits and costs of discovery, development and production. Provinces using their local knowledge and playing their landlord role can arguably set royalties to capture some rent without deterring or distorting private investment. Taken together these considerations constitute a strong argument for grouping resource revenues, keeping them under provincial control, and for sharing them among all provinces.

However, these characteristics do not justify resource revenues' being the only sources to be pooled and shared. For, in each province much resource rent or surplus winds up in private profits, urban land values, and labour earnings. Furthermore, elsewhere, similar surpluses are created by man-made advantages to industry: tariffs and quotas; monopoly power; and public transport policies and subsidies. Thus much provincial revenue disparity originates in differences among regional rent-like incomes, not all connected with natural wealth or scarcity.

For this reason, while maintaining a special concern that resource management and revenues not be transferred from provincial jurisdiction, we would replace the entire

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equalization scheme with an interprovincial sharing system. (Helliwell and Scott 1981, 53-54)

Helliwell and Scott elaborate on the manner in which resource revenues would be defined for the purposes of their proposal. First, resource revenues would include the 'potential hydro-electric revenues that most hydro-rich provinces do not bother to collect' (ibid., 52); eventually they would include revenues from other untaxed resources as well. Second,

the system must give credit to Alberta for the sharing already underway in the form of sales of oil and gas to other Canadians at less than world oil prices. This feature would reduce the immediate impact of the system on Alberta, and would give the governments and taxpayers of the oil-consuming provinces a greater stake in the potential revenues from increasing energy prices and encouraging efficient energy use.

Setting up the sharing system now, before oil and gas resources are depleted, would provide Alberta with long-run insurance akin to its own heritage fund. Alberta's contributed revenues would dominate in the first few years, but those from other province's resources would take up the burden later. Sharing would become a means of banking not only oil and gas revenues, but also goodwill. (Ibid., 53)

They conclude their analysis with a further comment on the Alberta situation:

The political challenge will lie in convincing the most resource rich provinces, especially Alberta, that in the long run it may be more satisfactory and rewarding for Albertans to send some of the current revenues to New Brunswickers rather than to attract New Brunswickers to live by the oil wells in order to collect their share. (Ibid., 56)

This last point refers, of course, to fiscally induced or rent-sharing migration in response to differential NFBs.

The proposal

Helliwell and Scott propose that each province contribute 25 per cent of its standardized total revenues to the common pool. Withdrawals would be on an equal per capita basis. This scheme can be expressed as follows:

$$E_i = \frac{P_i}{P_c} (.25 TR_c) - .25 TR_i, \quad (8.2)$$

where

E_i = equalization payments to province i ,

$.25 TR_i$ = each province's contribution into the common pool, namely 25 per cent of its total revenues (hence the value of the common pool will equal $.25 TR_c$, where TR_c is the sum of the provinces' total revenues), and

$\frac{P_i}{P_c} (.25 TR_c)$ = each province's withdrawal from the pool—that is, total revenues in the pool ($.25 TR_c$) allocated on a per capita basis, where P_i/P_c is each province's share of total population.

Equation 8.2 can be simplified by dividing both sides of the equation by P_i :

$$\frac{E_i}{P_i} = \frac{(.25 TR_c)}{P_c} - \frac{.25 TR_i}{P_i}$$

or

$$\frac{E_i}{P_i} = .25 \left(\frac{TR_c}{P_c} - \frac{TR_i}{P_i} \right). \quad (8.3)$$

Thus if a province's revenues, in per capita terms, are less than the all-province average of revenues, it will receive positive payments equal to one-quarter of this difference. And vice versa, since the rich

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provinces, (i.e., those for whom the bracketed term in equation 8.3 is negative) will have to make contributions to the pool equal to one-quarter of their excess per capita revenues.

Some estimates

Table 8.2 presents estimates of the Helliwell-Scott formula applied to 1982-83 provincial revenue data. It should be emphasized at the outset that the authors probably would not agree with this application of their formula, since it neither takes account of potential as distinct from actual revenues nor gives any credit to Alberta for the sharing it already does in terms of the low domestic energy price. Table 8.3 in the following section presents some estimates along Helliwell-Scott lines that do incorporate these features. For present purposes, the application is limited to the range of revenues that enter the existing equalization program.

The figures for provincial per capita revenues in row 1 are not actual revenues. Rather they are the revenues that would be obtained by applying national average tax rates to provincial revenue bases. The figure in the final column, \$3,253, is the all-province average, which corresponds to TR_c/P_c in equation 8.3.

Row 2 presents data relating to the bracketed term in equation 8.3, and row 3 contains the equalization flows. They range from +\$430 per capita for Prince Edward Island to -\$1,739 for Alberta. When expressed in dollar terms (rather than per capita terms) the flows sum to zero across all provinces, as is necessary under an interprovincial revenue-sharing pool.

Row 4 contains, for comparison purposes, the 1982 estimates of projected per capita equalization flows for 1982-83, based on the new RFPS equalization formula. At a glance, the equalization implications of the two formulae appear to be vastly different. However, it is important to recognize that unlike the existing formula the Helliwell-Scott formula is a *net* (receipts less payouts) equalization scheme. Consequently, in order to properly compare the two schemes it is necessary to put them on the same basis. Row 5 of Table 8.2 indicates by province the federal revenue needed, on a per capita basis, to finance the equalization flows in row 4. Subtracting row 5 from row 4 converts the latter to a net basis. Alternatively, if one assumes that under the Helliwell-Scott scheme Ottawa reduces its

TABLE 8.2

A Helliwell-Scott model utilizing estimates for 1982-83 provincial revenues (\$ per capita)

Row	NFLD	PEI	NS	NB	QUE	ONT	MAN	SASK	ALTA	BC	All provinces
1. TR_i/P_i ^a	1,685	1,533	1,840	1,856	2,167	2,611	2,232	3,898	10,211	3,387	3,253 ^b
2. $(TR_c/P_c) - (TR_i/P_i)$	1,568	1,720	1,413	1,397	1,086	642	1,021	-645	-6,958	-134	
3. Equalization payments under Helliwell-Scott ^c	392	430	353	349	272	160	255	-161	-1,739	-34	
4. Estimates of equalization payments for 1982-83 ^d	912	1,007	708	701	382	0	340	0	0	0	
5. Provincial source of funds to finance row 4 ^e	110	104	128	124	167	204	160	157	238	208	

^a Provincial per capita revenues, based on applying national average tax rates to the provincial revenue bases.

^b The all-province figure, \$3,253, is TR_c/P_c .

^c Equals 25 per cent of row 2.

^d Based on 1982 data for the RFPS equalization formula.

^e This row allocates the total value of equalization payments in row 4 to the various provinces (on a per capita basis) in accordance with Ottawa's sources of revenue as shown in row A.1 of Table 3.1.

SOURCE: Based on data in Part VI below.

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spending by the amount of the equalization program, then one can add the figures in row 5 to those in row 3 to put the Helliwell-Scott results on the same basis as the results for the existing scheme. The implications of the two outcomes are much the same. Compared with the existing equalization formula, the Helliwell-Scott scheme leaves the Atlantic region worse off, it benefits Quebec, Ontario, and Manitoba, and, of course, it penalizes Alberta. These results are readily explained: by treating all revenues in an identical fashion the Scott-Helliwell scheme favours those provinces that are relatively well off in terms of the nonresource revenues (e.g., Ontario, Quebec, Manitoba) and reduces equalization for those that are relatively poor in terms of the traditional revenue sources (the Atlantic Provinces). Raising the pay-in and payment ratio from 25 per cent to 50 per cent will raise the overall flows to the recipient provinces, but the relative distribution across provinces will remain as shown in Table 8.2.

Up to this point, all of the resource-revenue estimates have focused on actual rather than potential (forgone as well as actual) revenues. The purpose of the next section is to redress this situation. To anticipate the analysis somewhat, the discrepancies in the various measures of these potential revenues are so great as to render any such exercise of dubious value. Much needs to be done in terms of agreeing upon acceptable measurement standards before policy authorities can be expected to consider seriously any comprehensive rent-sharing proposals.

CALCULATING POTENTIAL RESOURCE RENTS

Underlying all the interprovincial revenue-sharing proposals are the dual assumptions (a) that *potential* as well as actual resource revenues and rents should be calculated and (b) that the resource provinces should be given credit for revenues that are already shared via such things as a lower domestic energy price. However, neither of the above analyses incorporated these assumptions in their related calculations. The purpose of this section is to present estimates of such calculations, drawing on work by the Economic Council of Canada (1982). It should be noted that the calculations that follow are based on pre-NEP data.

Table 8.3 reproduces the ECC's estimates of resource rents by province for 1980. Row 1 presents actual provincial resource revenues.

Table 8.3

Estimates of the magnitude and distribution of natural resource rents, Canada, by province or territory, 1980 (millions of current dollars)

Row		NFLD	PEI	NS	NB	QUE	ONT	MAN	SASK	ALTA	BC	Yukon & NWT	Canada
1.	Provincial natural resource revenues (excl. water power rentals)	27.9	0.2	9.8	13.4	114.1	138.4	43.2	695.2	5,089.3	874.7	-	7,006.4
2.	Rents not collected on:												
	a) Crude oil	-	-	-	-	-	13.8	83.3	1,296.3	10,305.9	315.8	23.5	12,038.6
	b) Natural gas and LPG	-	-	-	0.3	-	45.3	-	183.6	5,242.8	521.7	54.9	6,048.5
	c) Hydro-electricity	736.7	-	26.4	70.5	1,514.4	758.1	455.8	29.0	6.7	139.7	-	3,737.3
3.	Total rents, by province of production	764.7	0.2	36.3	84.2	1,628.5	955.6	582.3	2,204.1	10,644.6	1,851.9	78.4	28,830.8
4.	Hydro rents lost on exports	-73.5	-	-0.1	-9.1	-175.0	-92.4	-55.6	-0.1	-	-6.3	-	-412.1
5.	Redistribution to other provinces of rents not collected on:												
	a) Crude oil	305.5	58.6	683.7	659.3	3,320.4	3,761.0	302.4	-831.5	-9,194.4	892.3	42.8	-
	b) Natural gas and LPG	1.6	0.4	4.5	3.1	387.7	2,407.4	279.3	269.7	-3,408.3	80.0	-25.4	-
	c) Hydro-electricity	-529.6	3.4	3.9	71.3	334.7	162.2	-76.4	30.5	0.4	-0.4	-	-
6.	Redistribution of natural resource revenues to provinces through equalization	27.6	15.2	83.9	54.2	502.2	-431.0	84.1	-103.6	-114.2	-114.3	-4.0	-
7.	Total redistribution of rents to other provinces	-194.9	77.6	776.0	787.9	4,544.9	5,899.6	589.4	-635.0	-12,716.5	857.5	13.4	-
8.	Net distribution of rents	496.2	77.8	812.1	862.9	5,998.4	6,762.9	1,116.1	1,569.0	7,928.1	2,703.2	91.8	28,418.6
9.	Resource rents, by province of production (\$/capita)	1,318.6	1.9	42.5	119.0	258.4	111.5	566.2	2,274.1	9,932.5	702.4	1,217.5	1,205.6
10.	Redistribution of rents to other provinces (\$/capita)	-336.1	624.1	910.2	1,114.3	721.0	688.4	573.2	-655.2	-6,118.1	325.3	208.5	-
11.	Net distributed rents (\$/capita)	855.7	626.0	952.7	1,220.4	951.6	789.1	1,085.3	1,618.9	3,814.4	1,025.3	1,426.0	1,188.3
12.	Helliwell-Scott revenue-sharing pool ^a	83.0	141.0	59.0	-8.0	59.0	100.0	26.0	-108.0	-656.0	41.0	n/a	n/a

^a Calculated by applying equation 8.3 to row 11.
SOURCE: Economic Council of Canada (1982, Table 4.1)

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Uncollected rents for crude oil, natural gas, and hydroelectricity appear in rows 2a through 2c. Row 3 sums the actual and potential rents: the all-Canada potential equalled some \$28 billion, while \$7 billion was actually collected.

Rows 4 through 6 focus on the various redistributions of rents to other provinces. For example, rows 5a and 5b allocate the impact of the low domestic price for energy across provinces. For crude oil, the transfer is from Alberta and Saskatchewan to the residents of other provinces. The major redistribution of hydro rents (row 5c) is from Newfoundland to Quebec, reflecting the Churchill Falls contractual arrangement between these provinces. Row 6 focuses on the resource-rent redistribution incorporated in the current equalization formula. The large negative entry for Ontario relates to the funding inequity referred to on many previous occasions.

Row 8 presents the net distribution of rents by province for 1980. It equals row 3 minus rows 4 and 7.

Rows 9 through 11 convert these estimates from dollars to dollars per capita.

Row 12, which has been added to the ECC table, applies the Helliwell-Scott formula to the net per capita rents in row 11. Again it is far from clear that Helliwell and Scott would approve of this calculation. It is true that credit has been given to the resource provinces for the rent-sharing associated with the lower domestic energy prices (a calculation they would recommend), but the resulting benefits that accrue to *citizens* (not governments) of other provinces have been added to the provinces' rents (a calculation that they may not agree with). In any event, the equalization flows in row 12 indicate that Prince Edward Island would receive \$141 per person and Ontario would receive \$100, with other provinces' benefits at lesser levels. New Brunswick, Saskatchewan, and Alberta are net contributors to the pool. Interestingly enough, however, focusing on all potential rents and giving credit to the resource provinces for the existing rent redistribution associated with low domestic energy prices has substantially reduced Alberta's net contributions to the common pool (i.e., -\$656 per capita from row 12 of Table 8.3 compared with -\$1,739 from row 3 of Table 8.2). More generally, these allocations by province lend considerable substance to the earlier claim that it is difficult to rationalize the RNAS (or even the RFPS) formula in terms of the efficiency criterion.

As noted above, the estimates in Table 8.3 do not take account of the recent federal-provincial energy pacts for sharing revenues. However, the problems go much deeper. Different approaches to estimating potential rents can lead to very different estimates. In an evaluation of the Economic Council of Canada's report, Jean-Thomas Bernard (1982) presents some alternative estimates of the potential rents from hydro facilities. Table 8.4 compares the two estimates. The figures are widely different, even to the point of reversing provincial rankings (see, for example, the figures for Manitoba and British Columbia). Bernard suggests that there are also major discrepancies in the measures associated with natural resources other than the fossil fuels. The reader interested in why these measures can vary so much is encouraged to go to the original documents to sort out the underlying assumptions. The essential point is that there is no precise and generally accepted way to measure the potential rents. Nor is it clear how to determine whether or not they have already been capitalized in such variables as wage rates or land prices. Bernard's conclusion is that these discrepancies essentially guaranteed that policymakers would not seriously entertain an interprovincial revenue-sharing pool as an alternative to the current equalization program:

Le Conseil Economique du Canada s'est aventuré dans un champ de recherche particulièrement difficile en s'attaquant à l'évaluation de la rente associée aux ressources naturelles canadiennes et à sa répartition. Les résultats pour le pétrole et le gaz prêtent peu à la controverse. Il n'en est pas ainsi pour l'hydro-électricité et les autres ressources. Ces difficultés d'évaluation peuvent expliquer en partie les réticences exprimées par les politiciens dans le Rapport Breau à l'égard des régimes de péréquation qui incorporaient de façon significative ces sources de revenus. (Ibid., 298)

THE GAINER-POWRIE PROPOSAL

In the lead article of the first issue of *Canadian Public Policy* (1975), Walter Gainer and Tom Powrie presented a rather novel approach to the sharing of provincial resource rents. The starting point of their analysis was that the tax claims against any flow of rent should be the

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Table 8.4
Alternative estimates of hydro rents (\$ millions, 1980)

	NFLD	QUE	ONT	MAN	BC
Economic Council of Canada ^a	734	1,514	758	456	140
Bernard, Bridges, and Scott	414	968	236	119	553

^a These figures correspond with those in row 3 of Table 8.3.
SOURCE: Bernard (1982, Table 1, 298)

same whether this rent accrues to a company, a private person, or a government:

If all royalties in Alberta went to private individuals, they would be subject to personal income tax. Federal marginal rates of personal income tax range between 20 and 30 per cent on most taxpayers, although the general level of marginal rates in Alberta would be raised if potential maximum royalty revenues were distributed to persons because they would amount to several thousand dollars per taxpayer. If corporations received all the royalties, they would be subject to a federal marginal rate of nearly 40 percent. (Ibid., 11)

The difficulty arises when the rents accrue to governments. By virtue of Section 125 of the British North America Act, one level of government is forbidden from taxing the revenues of another level of government. This provision has come to be expressed in popular parlance as 'the Crown cannot tax the Crown'. In principle, the Gainer-Powrie concern ought to be extended beyond rents to include all *factor incomes*—rents, profits, and interest. However, the implication would remain the same: whether factor incomes accrue in the public sector or the private sector, they should be subject to similar tax treatment.

The particular concern motivating the Gainer-Powrie analysis related to the fact that the federal government did not receive a share of the provincial energy royalties. Gainer and Powrie recognized that implementation of the principle of uniform treatment of factor incomes would have to be through negotiated revenue-sharing

arrangements, since Section 125 probably prohibited unilateral tax legislation:

Obviously there is much room for negotiation about what the federal share of royalty income should be deemed to be under our principle that the federal share should be the same as it would have been were resources privately owned. We have chosen the figure of 30 per cent as a reasonable suggestion. (Ibid.)

The authors went on to estimate what equalization payments would have looked like for fiscal year 1973-74, given a 70:30 sharing of oil royalties between the provinces and the federal government. They assumed that oil was priced at world levels:

Compared with the actual 1973-74 equalization, the total is up by \$1.2 billion, a heavy increase. But federal revenues are increased by \$1.3 billion, from the 30 per cent share of royalties, so there is no net burden on the federal treasury from the scheme. (Ibid., 11-12)

Some interesting implications flow from the Gainer-Powrie contribution. First of all, while their analysis does provide an alternative approach to the funding of energy-related equalization, it does so by resort to a quite separate principle, namely that factor incomes accruing in the private or public sectors ought to be subject to similar tax treatment. However, the principle can be extended further: for example, I have suggested that elsewhere a negotiated compromise with respect to Section 125 would have provided an alternative to the NEP in terms of sorting out Canada's energy policy (Courchene 1981). Indeed, the principle of subjecting government factor incomes to taxation by the other level of government can be applied across the board—to everything from the profits of provincial government enterprises to interest from the various heritage funds to the rents (seigniorage) and profits from the Bank of Canada. The essential point here is that a negotiated compromise to Section 125 of the constitution would have dramatic implications for public-sector/private-sector interaction and could, as a byproduct, sort out some of the funding aspects of equalization.

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Second, the Gainer-Powrie approach is very closely related to the Boadway-Flatters analysis that was the core of Chapter 3's discussion of the theory of equalization. The latter set of authors has argued that one of the problems with the system of personal income taxation in Canada is that the definition of the tax base is not sufficiently broad. In particular, while source-based revenues (such as energy royalties) that accrue to provinces are not deemed to be part of income for personal income tax purposes, these revenues do confer NFBs on provincial residents. The Gainer-Powrie approach to revenue-sharing can, under certain conditions, be shown to be roughly consistent with the Boadway-Flatters analysis under the dual assumptions of (a) narrow horizontal equity and (b) the provinces' having property rights over resource revenues. The details of this analysis are quite complex and are currently being debated in the journals, so they will not be elaborated on here.⁶

CONCLUSION

If one assumes that the role of equalization is to reduce the differentials in net fiscal benefits across provinces, then interprovincial revenue-sharing makes eminent sense. But if the underlying motivation for equalization is to provide sufficient funds for provinces to mount comparable levels of public services, then the rationale for having provinces make direct contributions, positive and negative, to a common pool is somewhat reduced.

At the political level, the problem created by two-tier systems or revenue-sharing pools is that the ensuing distribution of payments and contributions does not coincide with the pattern of net benefits under the *existing* equalization program. As we have seen, almost any approach to interprovincial rent-sharing would make Ontario a recipient province. For many reasons this result is unpalatable to Canadians, even though it is a straightforward consequence of any analysis that attempts to minimize the differential NFBs across provinces.

There is a further problem at the political level. Several provinces and, it would appear, most federal legislators do not want to turn over the responsibility for equalization to the provinces. In part, there is the fear that if the provinces mounted such a program they might at some future date dismantle it, leaving little or no recourse for the

former recipient provinces. Probably more important is the belief expressed by the Parliamentary Task Force on Federal-Provincial Fiscal Relations that 'it is necessary to reaffirm *federal* responsibility for interpersonal and inter-regional distribution' (1981, 169). I have emphasized the word 'federal' in this quotation because it really means 'central': revenue-sharing pools certainly are consistent with federalism. In any event, the Task Force proceeds to relate this principle to the two general types of revenue-sharing schemes that have been the subject of this chapter:

One proposal, advanced by Professors Helliwell and Scott, involves a scheme under which provincial revenues would be redistributed through an interprovincial equalization program. The Task Force judged that this proposal has substantial theoretical and analytical appeal, but that it is inconsistent with members' strong conviction that to transfer this degree of responsibility for inter-regional redistribution to a purely provincial scheme *would violate basic principles of federalism*.

The original two-tier proposal of Professor Courchene, which would take only resource revenues into an interprovincial pool, while maintaining a basic federal equalization program including all non-resource revenue sources, encounters the same objection. This objection is lessened to some extent if the federal government initiates, underwrites and participates in whatever new national institution is designed to provide for the pooling of these resource revenues, but we would nevertheless reject this approach to revenue-sharing on principle. (Ibid., 170; emphasis added)

As will become evident later in the study, Canada's new equalization program implicitly, if not explicitly, rejects the notion of equalizing NFBs and moves in the direction of ensuring that all provinces have a level of revenues sufficient to mount some acceptable level of public services. Resource revenues now play an even smaller role in the equalization formula than they did in the last years of the RNAS scheme, a circumstance that can be interpreted as a rejection of the rationale underlying the various proposals for interprovincial sharing. On the positive side, however, there has been an acceptance by most participants in the debate, including the Parliamentary Task

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Force, that the analysis underlying these proposals does have intrinsic merit. It seems to me that the task before those of us who favour such schemes is to continue to contribute to the public debate and, in particular, to find more acceptable approaches to the estimation and measurement of the various economic rents.

NOTES

- 1 Alternatively, one could equalize up to the five-province standard, as in the 1982-87 arrangements.
- 2 It is not obvious how one should measure these savings. An alternative might be the total that Ottawa would save in comparison with the RFPS for 1982-83.
- 3 See, for example, Ontario (1980).
- 4 See Purvis and Flatters (1980).
- 5 Note that the minister of finance was referring to the initial version of the constitutional provision for equalization. The version that was eventually enshrined makes reference only to Parliament and the Government of Canada and *not* to provincial governments.
- 6 See Boadway, Flatters, and LeBlanc (1983).

Appendix:

Equalization in Germany: a two-tier system in action¹

THE FIRST TIER: VERTICAL EQUALIZATION

Like the Canadian federation, the Federal Republic of Germany levies some taxes which are specifically earmarked for the federal government, some taxes which are earmarked for the state governments, and some taxes which are shared. For 1971 the federal taxes yielded DM 30 billion while the state taxes generated DM 10.1 billion. By far the largest portion of revenues for both the federal government (DM 63.6 billion) and the states (DM 46.4 billion) came from shared taxes. Three of the four shared taxes (i.e., wage and assessed income tax, other income taxes, and the trade tax) were shared equally between the two levels. The amounts received by the various states depended on the local yields of those taxes. The fourth tax, the value-added tax, is shared 70:30 between the federal government and the states. Of the states' share (i.e., of the 30 per cent) 75 per cent is distributed to the individual states on a population basis and the remaining 25 per cent is to be used to assist the financially weak states. Specifically, this 25 per cent is designed to assist states with below-average tax receipts to reach at least 92 per cent of the all-state average. This portion amounted to just over DM 3 billion with total value-added taxes distributed to the state equalling DM 13 billion for 1971.²

The treatment of shared taxes in Germany differs considerably from current Canadian practice. First, tax rates on shared taxes are uniform across Germany. Second, in Canada we distribute the shared taxes in accordance with local receipts of these taxes and they are then equalized to the national average level. Payments for equalization in

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Canada come from consolidated revenue, not from an earmarked shared tax. The 25 per cent portion of the value-added tax in Germany resembles an equalization payment and the remaining 75 per cent, which is distributed on a per capita basis, also tends to equalize revenue. In fact, both amount to a redistribution of a given tax source, whereas in Canada we generate additional tax revenue to provide for equalization.

INTERSTATE REVENUE-SHARING POOL: HORIZONTAL EQUALIZATION

The second tier of the German equalization program is an interstate revenue-sharing pool. Conceptually the approach is rather straightforward, although the details of this interstate transfer are somewhat complicated.

The first step in the procedure for formulating the interstate contributions is to calculate what Hunter refers to as the 'adjusted tax capacity', ATC_i , where i refers to the state in question (1973, 76). This is accomplished by obtaining the state's tax capacity TC_i , which is the sum of (a) state taxes, (b) the state's share of joint taxes according to local yields, (c) the state's share of the value-added tax, and (d) some element of the yields of municipal taxes. The important point to note is that the tax-capacity definition includes the 'equalizing' carried out in the first tier. Deductions are then made for any special burdens or extraordinary expenditures facing the state. The result is the adjusted tax capacity:

$$ATC_i = TC_i - S_i, \quad (8A.1)$$

where S_i is the special burden associated with state i .

The next step is to calculate the 'equalization yardstick'. This is defined as

$$Y_i = \frac{TC_g}{P_g} \cdot w_i P_i, \quad (8A.2)$$

where TC_g/P_g equals the all-state average taxable capacity per capita, defined as

$$\left(\sum_{i=1}^n TC_i \right) / \left(\sum_{i=1}^n P_i \right),$$

where P_i is the population of the i th state, n is the number of states, and w_i is a weight designed to take into account the higher revenue needs assumed to be associated with large population densities. The determination of the value of weights, w_i , essentially depends on population densities.³ They start on a sliding scale with a value of $w = 1.00$ for cities with 5,000 people and move up by steps to a valuation of 1.35 for cities with 500,000 people. The city-state of Hamburg, for example, has a weight of 1.35, as does Bremen, the other city-state in the federation. Over and above these adjustments, there are extra allocations to coincide with population density which range from 2 per cent (i.e., $w = 1.02$) where there are between 1,500 and 2,000 persons per square kilometre to 6 per cent where there are more than 3,000 persons per square kilometre. The weights assigned to the cities and to the overall population density for states are combined (weighted by the relevant population) to attain the overall w_i for each state. Generally these weights serve to lessen the magnitude of flows in the second tier, because usually the wealthier states have the large population densities and therefore have larger values for w_i .

In general, one can evaluate whether a state is rich or poor by comparing its adjusted tax capacity with the equalization yardstick:

$$PE_i = (TC_i - S_i) - \frac{TC_g}{P_g} \cdot w_i P_i,$$

or

$$PE_i = ATC_i - Y_i, \tag{8A.3}$$

where PE_i is used to designate a state's potential equalization. For poor states PE_i is negative; in other words, its adjusted tax capacity is less than the equalization yardstick, and vice versa for rich states. Alternatively one could express this formula in per capita terms, which would imply that per capita potential equalization would equal

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per capita adjusted tax capacity minus the national average capacity where the latter term is adjusted by w_i .

Actual equalization payments are not identical to potential equalization, PE_i . States that are 'poor' are allowed to draw revenues from the pool equal to their ATC_i minus 95 per cent of the equalization yardstick:

$$AE_i = ATC_i - 0.95Y_i \text{ for } PE_i < 0, \quad (8A.4)$$

where AE_i is actual equalization payments to state i . The contributions into the pool of rich provinces begin only after they have a surplus in excess of 102 per cent of the equalization yardstick. For surpluses between 102 per cent and 110 per cent they contribute 70 per cent of the excess and beyond 110 per cent they contribute 100 per cent of the excess; thus,

$$AE_i = 0.7(ATC_i - 1.02Y_i) \text{ for } PE_i > 0 \text{ and } 1.02Y_i < ATC_i < 1.10Y_i,$$

and

$$AE_i = 0.7(1.10Y_i - 1.02Y_i) + (ATC_i - 1.10Y_i) \text{ for } PE_i > 0 \text{ and } ATC_i > 1.10Y_i. \quad (8A.5)$$

Hunter provides an example, utilizing rough estimates for Lower Saxony and Hesse, which will help clarify the operation of the revenue-sharing pool (1973, 87).

	Lower Saxony	Hesse
TC_i	= DM 4,500 million	DM 5,000 million
S_i	= DM 200	zero
TC_g	= DM 46,000 million	DM 46,000 million
P_g	= 60 million	60 million
P_i	= 7.1 million	5.4 million
w	= 1.02	1.05

From equation 8A.4, for Lower Saxony (a 'poor' state):

$$\begin{aligned} AE_i &= 4,300 - 0.95 (5,552) \\ &= 4,300 - 5,274 \\ &= -974. \end{aligned}$$

Hence, Lower Saxony can draw DM 974 million from the revenue-sharing pool. For Hesse, a 'rich' state, the potential equalization or surplus from equation 8A.3 equals

$$\begin{aligned} PE_i &= 5,000 - 4,347 \\ &= \text{DM } 653 \text{ million.} \end{aligned}$$

Since this is in excess of 100 per cent of the equalization yardstick, equation 8A.5 applies:

$$\begin{aligned} AE_i &= 0.7 (4,782 - 4,434) + 5,000 - 4,782 \\ &= 244 + 218 \\ &= 462. \end{aligned}$$

Hesse must contribute DM 462 million into the revenue-sharing pool.

Overall, these interstate transfers accounted for between 4 and 5 per cent of state tax revenues in 1971.⁴ In terms of individual states, however, these payments ranged as high as 14 per cent of revenues for Saarland. It should be mentioned that prior to 1970 these interstate flows were considerably larger. They have been reduced because of the introduction of tax sharing for the value-added tax, referred to in the discussion of first tier. Obviously, the more 'equalization' that is accomplished in the first tier the smaller will be the role for the interstate revenue-sharing pool. As stated earlier, this analysis relates to equalization in Germany as of 1971.

The particular manner in which equalization payments operate in other federations need not have much to say about how they ought to operate in this country. Moreover, equalization payments are but one aspect of overall federal-provincial financial relations. A considerable element of 'equalizing' was incorporated into the shared-cost aspect of the 1977 Fiscal Arrangements Act: the switch from 50 per cent cost-sharing to what essentially amount to per capita grants generally bestowed relative benefits on the 'have-not' provinces. A compre-

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hensive comparison of the two countries would of necessity require one to take full account of these various federal-state or federal-provincial grants. Nonetheless, the German system of equalization payments does provide a motivation for pursuing the implications of a two-tier system in Canada.

NOTES

- 1 This appendix reproduces Courchene and Copplestone (1980). In turn, this source is based on a monograph by Hunter (1973) that reflects practice in Germany in the early 1970s.
- 2 The figures in this paragraph are from Table 4 of Hunter (1973).
- 3 Note that these weights, w_i , correspond closely to the need index N_i/N_c discussed above (Chapter 4).
- 4 Hunter's data for 1971 indicate that transfers into the pool equal withdrawals. This does not follow automatically from the characteristics of the formula, however.

9

A fiscal-need approach to equalization

The constitutional provision relating to equalization states that these payments are intended 'to ensure that provincial governments have sufficient revenues to provide reasonably comparable levels of public services at reasonably comparable levels of taxation'. Yet all of the equalization schemes, actual or proposed, that we have considered thus far (or that we shall consider hereafter, for that matter) focus on equalizing *revenues*. None of them refers *explicitly* to basic or comparable public services. At best, as was pointed out in Chapter 4, some of them define comparable public services implicitly. In general, these schemes assume that the 'appropriate' levels of comparable public services are (a) identical in per capita terms across the provinces and (b) determined in the aggregate by the per capita level of standardized revenues. But to assume that they are identical in per capita terms is essentially to disregard expenditure needs. Yet it may be argued that the RNAS formula with its 50 per cent equalization of energy revenue and the new formula with its five-province standard do incorporate expenditure needs indirectly. Both of these approaches ensure that 'have-not' provinces' revenues are *not* brought up to the *full* national-average level of provincial revenues. Presumably one interpretation of these limits is that in their absence provinces would receive equalization transfers sufficient to provide *more than* reasonable levels of public services.

The purpose of this chapter is to explore the possibility of implementing a thorough-going fiscal-need approach to equalization. The fiscal-need concept, as it was defined in Chapter 4, incorporates both 'expenditure needs' and 'revenue means'. Thus an attempt will be made here to incorporate explicitly both expenditure needs and

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revenue means in a single equalization framework. Since the analysis will be exploratory rather than definitive, I shall make no attempt to attach numbers to the proposals that follow.

From the perspective of the constitutional provision relating to equalization, and indeed from the perspective of the Rowell-Sirois Report, the justification for incorporating fiscal need in any equalization scheme would appear rather compelling. The provision of reasonably comparable public services across provinces need not imply identical per capita expenditures. For example, there is no question that it costs more per capita to finance the Canada Assistance Program (i.e., welfare) in some provinces than in others. Hum argues that provinces with a larger proportion of persons on welfare ought to be compensated accordingly in the equalization formula (1983, ch. 7 and appendix B). This notion is difficult to entertain unless expenditures play an explicit role in equalization.¹ Similarly, it can be argued that post-secondary education in Ontario, where academic salaries are relatively high and graduate programs are extensive, requires greater expenditures than post-secondary education in, say, the Atlantic Provinces. Hence, ensuring that all provinces' revenues are brought up to some agreed-upon level is not the same as ensuring that provinces have revenues sufficient to discharge their expenditure needs.

There is a further rationale, albeit a somewhat tenuous one, for devoting some effort to elaborating a fiscal-need approach. In theory, any province could mount a constitutional challenge to the existing program on the basis that it does not take expenditure needs into account and therefore does not ensure that provinces have sufficient revenues to provide reasonably comparable levels of public services.

The chapter begins with a discussion of what is referred to as a 'representative expenditure system' (RES), the expenditure counterpart of the representative tax system. The RES is then combined with a revenue means component to derive a version of a fiscal-need equalization program. This exercise is followed by a more formal proposal for a fiscal-need approach, one in which equalization is the overarching interprovincial transfer that adjusts automatically to alterations in other components of the federal-provincial financial interface. The penultimate section deals with the Australian system of equalization, which is a variant of the fiscal-need approach. The

conclusion of the chapter looks at the merits and demerits of equalization based on fiscal need.

A REPRESENTATIVE EXPENDITURE SYSTEM

Resurrecting fiscal need

As a starting point for the analysis it is useful to recall, from Chapter 4, the equation for fiscal need:

fiscal need = expenditure needs – revenue means. (9.1)

The RNAS equalization formula can be cast into this framework along the lines of equation 4.6 (which is the ‘shares’ approach to the RNAS) or in terms of the ‘per capita yield’ approach:

Equalization per capita = *national average per capita yield at national average tax rates* – *province’s own per capita yield at national average tax rates.* (9.2)

The first term can be viewed as a simplified proxy for expenditure needs: as noted above, they are implicitly assumed to be identical in per capita terms and in aggregate are determined by the all-province average per capita revenue yield evaluated at national average tax rates.

The concept of representative expenditures

One approach to devising an expenditure-related system would be to replace the first term in equation 9.2 with a full-blown *expenditure standard*. Following Clark, I shall refer to this as a ‘Representative Expenditure System’ (RES):

If one wished to take account of interprovincial disparities in expenditure, the most appropriate way of doing this would be by constructing a Representative Expenditure System which could then be superimposed on the Representative Tax System. The two systems would parallel each other in structure. Whereas the RTS breaks total provincial-local revenues down into revenue sources, the RES would break total provincial-local expenditure down into expenditure

functions, and whereas the RTS depends upon a measure of fiscal capacity or tax base for each revenue source, the RES would depend upon a measure of expenditure need for each function. (Clark 1983, 10-11)

To implement this approach, two conceptually different sets of decisions would have to be made. First, which provincial expenditures would be included in the RES? All of them? The Rowell-Sirois Commission, in determining the payment levels for its proposed National Adjustment Grants, focused principally on provincial expenditures relating to education, welfare, and certain development expenditures. Selecting the expenditure functions that would enter the formula is clearly the key ingredient in devising an RES, since this choice will essentially drive the equalization formula—that is, it will become the ‘standard’.

There is also a second set of decisions to be made. How does one handle the differences that exist across provinces in respect to expenditures in each of the ‘representative’ expenditure categories? In general, one can view any such differences as arising for three basic reasons (ibid., 10). First, provinces may provide different levels of actual public services for a given expenditure category as a result of conscious political choices. Presumably these differences would simply be *ignored* by the formula, since the per capita expenditures would be *standardized* by the representative expenditure system. A province would obviously be free to provide above-standard or below-standard levels of public services, but it would not be able to influence its level of equalization by doing this, at least not in a substantial way.²

Second, interprovincial differences in spending on various expenditure functions can arise because there are differences in average per capita needs for public services across provinces. For example, since medical expenses increase with increasing age, those provinces with older population-age structures have greater expenditure needs for health. Likewise, provinces with higher unemployment rates presumably have greater per capita needs when it comes to expenditures on welfare. Although some element of moral hazard is bound to creep in, differences in expenditure needs per capita *should be incorporated in the RES*. The criteria for assessing differential needs would be expenditure-specific and national in scope

(i.e., they would be determined independently of the practices of the individual provinces).

The third source of interprovincial differences in per capita expenditures is differences in average unit costs of providing the standardized services. In principle, these differences ought to be incorporated as well. However, as Clark notes, 'the argument for taking account of differences in unit costs is weaker [than the argument with respect to per capita needs] because it would tend to support high-cost government operations as against low-cost operations and this would not contribute to the overall efficiency of the public sector or of the economy as a whole' (ibid.). Public sector wages are a case in point. In the late 1970s, new graduates with doctorates in economics (and presumably those with doctorates in other areas as well) were paid nearly 20 per cent more by Quebec universities than by Ontario universities. Should Quebec therefore be allowed to argue that the unit cost of providing post-secondary education is higher in Quebec? The answer should be no. Once again it seems clear that if a correction is to be made for unit costs, the way to do it is via criteria that the individual provinces cannot directly manipulate. For example, it would be preferable to determine the provincial indices of wages and salaries in terms of, say, the average industrial wage in the province rather than in terms of the particular public-sector wage structure in the province. In other areas the appropriateness of adjusting for unit costs is more obvious: it costs a lot more to build a mile of highway in the Rockies than it does on the prairies.

Pulling these various strands together would lead to the following specification for the expenditure component of per capita equalization:

$$\text{Representative expenditure system} = \frac{E_j}{P} (N_{ij}) (C_{ij}) \text{ for all } j, \quad (9.3)$$

where

E_j/P = the standardized national average per capita expenditures for function j ;

N_{ij} = the index of expenditure need in province i for function j . (For each expenditure function the N_{ij} would sum to unity across provinces: for

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provinces with a high need for this function the value of N_{ij} would exceed 1.0 while for low-need provinces, N_{ij} would be less than 1.0;

C_{ij} = the index of the cost of providing a given unit of expenditure j in province i . (Again, for provinces with high costs for function j the value of C_{ij} would exceed unity and vice versa).

Note that the E_j/P term would be identical for all provinces. Provincial variations in the standard would arise only because of differences in relative needs (N_{ij}) or relative costs (C_{ij}).

THE 'REVENUE MEANS' COMPONENT OF AN EXPENDITURE APPROACH

The representative expenditure system, corrected for relative provincial needs and costs, would set the equalization 'standard'; in terms of the wording of the constitutional provision, it would define the reasonably comparable level of public services that each province should be able to provide. In order to calculate a province's equalization, its *access to revenues must be deducted from this standardized measure of expenditures*. Not surprisingly, there are many ways to calculate a province's access to revenues. One obvious option is that shown in the final term of equation 9.2 above, namely that a province's revenue means will be equal to the per capita yield across all revenue categories generated by applying national average tax rates to the province's *own* tax bases; that is,

$$\frac{R_i}{P_i} = t_j \cdot \frac{B_{ij}}{P_i} \text{ summed over all } j, \quad (9.4)$$

where

$$\frac{R_i}{P_i} = \text{standardized revenue means per capita for province } i,$$

$$t_j = \text{the national average tax rate for revenue source } j, \text{ and}$$

$$\frac{B_{ij}}{P_i} = \text{province } i\text{'s own per capita base for revenue source } j.$$

This is, of course, the RNAS approach to assessing province i 's fiscal capacity.

An alternative approach to assessing a province's revenue means would be to apply a macro indicator, as in equation 7.1 in Chapter 7. In this case, a given province's access to the standardized revenue means would equal:

$$\frac{R_i}{P_i} = \frac{1}{P_i} \cdot TR \cdot \frac{GDP_i}{GDP_c}, \quad (9.5)$$

where

$$\frac{R_i}{P_i} = \text{standardized revenue means per capita for province } i,$$

$$TR = \text{total revenues of the provinces from their own sources,}$$

$$GDP_i = \text{the macro indicator (assumed to be gross domestic product) for province } i,$$

$$GDP_c = \text{the all-province total for GDP, and}$$

$$\frac{1}{P_i} = \text{the inverse of province } i\text{'s population, in order to convert revenue means into a per capita figure.}$$

Under this definition of standardized access to revenues, a province is assumed to be able to generate own-revenues equal to total provincial revenues multiplied by the province's share of overall gross domestic product. Hence, its equalization would equal the difference between equation 9.3 and equation 9.5.

It is always a good deal easier to spell out the principles underlying an equalization program than it is to work out the details of implementation. This is certainly the case for a fiscal-need approach. For example, the range of expenditures making up the RES have to be

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roughly commensurate with the range of revenues covered in the revenue means component. If the RES refers to only two-thirds of overall provincial/local expenditures whereas the revenues entering the formula are exhaustive, then no province is likely to be eligible for equalization, and vice versa. On the data side, a full-blown attempt to develop information relating to an RES might be a conceptual and statistical quagmire. Anyone familiar with the current equalization program recognizes the magnitude of the data collection exercise needed to generate the tax bases. A similar effort would be required for the RES—probably a much greater effort if the breakdown of expenditures became very detailed.

A further point deserves comment. A fiscal-need approach differs from the other equalization approaches in that the standard of equalization is a needs/costs adjusted *expenditure* standard rather than a *revenue* standard. However, it would still be possible to define the initial level of expenditures per capita (prior to adjusting for needs or costs) in terms of a national-average level or indeed a five-province level. Thus both the expenditure needs component and the revenue means component could be cast in terms of either a national-average or a five-province framework. And, as equation 9.5 indicates, a macro approach to revenue means can also be integrated into a fiscal-need format.

A PROPOSAL FOR A FISCAL-NEED PROGRAM

It might appear that equation 9.3 minus equation 9.4 or equation 9.5 would be an appropriate equalization program. In my view, *this would be the case if equalization payments were the only transfers between Ottawa and the provincial governments*. But they are not the only transfers. For example, the provinces also receive conditional transfers under the Canada Assistance Plan for their expenditures on welfare. They also receive cash grants for the operations of the established programs (health and post-secondary education). In addition, there are a host of other, probably less important, intergovernmental transfers. It seems to me that these must be taken into account in any equalization formula.

Accordingly, I propose the following general expression as the preferred approach to an expenditure-related equalization program:³

A fiscal-need approach to equalization

$$\begin{array}{ccccccc} \textit{Per capita} & & \textit{proxy for per} & & \textit{proxy for province} & & \textit{all federal} \\ \textit{equalization} & & \textit{capita} & & \textit{i's ability in per} & & \textit{transfers to} \\ \textit{for} & = & \textit{expenditure} & - & \textit{capita terms to} & - & \textit{province i,} \\ \textit{province i} & & \textit{need} & & \textit{finance these} & & \\ & & & & \textit{public services} & & \end{array} \quad (9.6)$$

where expression 9.3 would be the proxy for expenditure need and either equation 9.4 or equation 9.5 would be the proxy for revenue means.

The third term in equation 9.6 needs some elaboration. Consider provincial expenditures on welfare. The federal government pays 50 per cent of the total cost of provincial welfare expenditures under the provisions of the Canada Assistance Plan. How might the proposed expenditure equalization program handle these welfare expenditures? First, welfare expenditures could be included in the RES along the lines of equation 9.3, corrected perhaps for expenditure needs, etc. Note that welfare expenditures would include both the provincial and the federal portions, not just the former. Because total welfare expenditures are in the RES, there would be *over-equalization if the federal payments for welfare were not deducted*. Hence the rationale for the third term in equation 9.6.

The reader will recognize that there is an alternative way to handle welfare expenditures, namely to include only the provincial portion of expenditures in the RES. This approach would obviate the need for subtracting the federal portion in the third term. These two approaches would be essentially identical if the RES were not corrected for need or unit cost. Conceptually, however, one *should* apply these adjustments, and they should be applied to *total* expenditures by the provinces on this function and not just to the provincial component. Hence, the approach in equation 9.6 is, in my opinion, preferable to one that would net out the federal share from the RES.

This same approach would be taken with respect to the other expenditure functions for which the federal government picks up part of the tab—that is, health and post-secondary education.

In my view, the expenditure approach to equalization has one major advantage over *any* of the other equalization approaches in the study. *It automatically takes into account any changes in the funding of other federal-provincial programs*. In other words, under the expenditure approach equalization becomes a *residual* program,

incorporating any alterations elsewhere in the federal-provincial finance area and ensuring that provincial finances come up to the agreed-upon level. For example, suppose that there is a change in the funding for post-secondary education and suppose further that this is not occasioned by any change in the expenditure standard for this function—that is, the first term in expression 9.6 does not change. Nothing changes except the federal-provincial funding arrangements.

Suppose that as a result Manitoba now receives fewer dollars of federal support for education. The third term in expression 9.6 decreases and Manitoba's equalization increases in a corresponding fashion. Equalization for those provinces that benefit from the change in funding would drop accordingly. However, if the higher funding levels are adopted because, say, expenditures for this category ought to be increased, *then the RES rises* and there is no need for equalization to alter.

The case for deducting federal transfers related to those functions included in the representative or standardized expenditure (i.e., in the first term of expression 9.6) is straightforward. What about federal transfers to selected provinces? Suppose that Ottawa enters into an agreement with Prince Edward Island to provide funding for some specific project. Should equalization fall as a result? In principle, the answer should be 'yes'. However, there is a peculiar set of incentives involved in this case. Special agreements with 'have' provinces would not be offset under an expenditure equalization approach because these provinces would receive no equalization, but agreements with 'have-not' provinces would be offset. There is no simple answer to this predicament. If the fiscal-need formula were cast in terms of a *net* formula (poor provinces withdrawing, rich provinces paying in), then the treatment could be symmetrical. My own preference would be to have an equalization offset for *all* transfers to provinces. If for some reason it were deemed appropriate to exempt some transfers from an automatic offset, this request would be submitted to the equalization authorities for approval.

Thus an equalization program designed along the lines of equation 9.6 would become the *overarching aspect* of federal-provincial fiscal arrangements. This is clearly not true of the RNAS or the RFPS programs. Ottawa can increase or decrease its share of funding for the established programs or the Canada Assistance Plan and this will have *no* impact on RNAS or RFPS equalization flows (except to the

extent that the federal government transfers tax-points rather than cash to the provinces). In my view, the expenditure approach, incorporating as it does the rest of the interprovincial financial interface, might be preferred to the existing approaches, which treat equalization in considerable, or even complete, isolation from other federal-provincial transfers.

What I have in mind here becomes more obvious if we consider the fact that under the the new RFPS program Manitoba's equalization has plummeted in relation to that of the Atlantic Provinces. To be sure, various transitional measures will moderate the blow for a limited period. But what change has occurred in Manitoba's spending needs or in its access to revenues between 1981-82 and 1982-83 sufficient to provide a rationale for a very substantial absolute and relative downward shift in its equalization flows (and a corresponding upward shift in the flows to the Atlantic Provinces)? One answer to this question is that the reworking of equalization was probably motivated by the need to fill some of the more obvious chinks in the armour of the RNAS. To put the matter differently, equalization has taken on a life of its own. Should it have such an independent existence? One desirable aspect of an equalization program might be integration with the overall flow of transfers between the federal government and the provinces. Even if a fiscal-need approach is a nonstarter for political, conceptual, or computational reasons, the notion that equalization could play an overarching role in terms of balancing the provinces' expenditure needs and revenue means merits some consideration.

As was noted in the introduction to this chapter, no attempt is made here to provide estimates for equalization under an expenditure approach. However, Moore (1981) does go as far as to suggest which expenditure functions might be included in the RES and which might be excluded. To be sure, devising a workable RES would be both controversial and complex.

Finally, it is appropriate to note that many of the equalization measures discussed earlier could be brought to bear on the expenditure approach described here. For example, while the above analysis assumed that equalization flows under a formula such as equation 9.6 would come from federal coffers, the fiscal-need approach to equalization could take the form of an interprovincial revenue-sharing pool.

THE AUSTRALIAN EQUALIZATION APPROACH⁴

It is instructive to focus on the manner in which our sister federation, Australia, incorporates the concepts of fiscal need into its equalization program. Since Australia's overall approach to equalization is quite different from ours, a brief overview of the Australian model is in order before we direct our attention to those aspects of the model that relate to the discussion in this chapter.

The role of equalization

As of 1976-77, a *specified proportion* of overall personal income tax collections in Australia (the personal income tax is collected by the federal government) was earmarked for distribution to the Australian states in the form of equalization payments. This proportion was initially set at one-third of current income tax collections. In order to reduce uncertainty about the payments, the proportion was later set at roughly 40 per cent of the previous year's collections. The rationale for this scheme is not very different from the rationale for Canada's equalization formula. Section 13(3) of the States (Personal Income Tax Sharing) Amendment Act, 1978 states that

the respective payments to which the States are entitled under this Act should enable each State to provide, without imposing taxes and charges at levels appreciably different from the levels of taxes and charges imposed by the other States, government services at standards not appreciably different from the standards of the government services provided by the other States. (Commonwealth Grants Commission 1981, 18)

The role of the Australian equalization formula is to *distribute this given amount of revenue* to the states. Our interest in the Australian scheme relates this distributional formula, which is very similar to equation 9.6. However, as was noted above, it is useful to focus first on the general approach to equalization in the Australian context, since it differs markedly from the Canadian model.

Chapter 3 referred to the two quite different principles that can be invoked in correcting for vertical imbalance in a federation—the principle of derivation and the principle of equalization. Under the former principle, intergovernmental grants are paid to provinces in relation to the amount of revenues generated within these provinces.

With some degree of distortion, this description applies to the treatment of personal income tax revenues in Canada—the provinces have access to roughly one-third of all income taxes, which are returned to them in accordance with the amounts of income tax generated within their respective jurisdictions. This arrangement, in turn, generates horizontal imbalance across provinces. To correct this imbalance, Canada mounts an equalization program that offsets to a large degree the interprovincial differences in the distribution of the personal income tax, and of some 30 other taxes as well.

Australia returns 40 per cent of total personal income tax receipts to the states, but *not* according to the principle of derivation. The amount going to each state depends on its fiscal need and its comparable access to the range of other state revenues. This vertical transfer corresponds to the 'principle of equalization' in Chapter 3. Thus the Australian equalization formula does *not* determine the amount to be equalized—this is set by the assignment to the states of 40 per cent of personal income taxes. Rather, it determines the per capita allocations of this fixed pie that the various states receive.

The Australian formula

A given state's share, G_i , of the overall transfer G is determined as follows:

$$G_i = \frac{B_i}{\Sigma B_i} \cdot G, \quad (9.7)$$

where

G = 40 per cent of the overall personal income tax collections in the previous year,

$\frac{B_i}{\Sigma B_i}$ = state i 's proportion of the total entitlement, and

G_i = state i 's sharing or equalization payment.

The role of the 'distribution model' is to determine the various B_i s.

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The formula for distributing these shares to the states is quite complicated and its precise details will not be reproduced here. In general, however, it is quite similar to equation 9.6. Specifically, the formula contains an expenditure standard corrected for the special expenditure needs of the various states. This expenditure standard is compared with the standardized revenue means of the various states. One then subtracts from the difference between the two 'an amount representing the extent to which the claimant State's needs had been met from other Commonwealth grants' (*ibid.*, 20). This is, of course, the third term in equation 9.6.

Now to more detail. In setting the terms of the standard for expenditures, Australia focuses on several broad expenditure categories, each of which is divided into subcategories. The broad categories include education, culture and recreation, health, welfare services, law and public safety, legislature expenses, community services, regulatory services, services to industry, debt charges, natural disasters, and a miscellaneous expenditure category.

For each of the subcategories within a given category, 'a State's per capita expenditure needs should be defined as the difference between the State's standardized per capita expenditure and a standard per capita expenditure, where the standardized expenditure was the amount the State would need to spend to provide a standard level, range, and quality of services if it were to apply standard policies and operate at standard efficiency' (*ibid.*, 93). In determining the special needs of each state with respect to each expenditure factor, the program takes into account the following factors (*ibid.*, 98):

- (a) scale factors
- (b) population-related factors
 - (i) dispersion
 - (ii) urbanization
 - (iii) social composition
 - (iv) age structure
- (c) environment factors
 - (i) physical
 - (ii) economic.

Without going into detail about the manner in which these factors are applied to the expenditure categories, it is clear that the Australian

approach has developed a type of comprehensive RES, and one that incorporates the specific expenditure needs of each state with respect to each expenditure function.

In determining revenues, the Australian distributional formula takes into account roughly 25 tax bases of the states. We need not concern ourselves with how it handles these revenues since the Canadian system has, over the years, developed several approaches of its own that work as well.

Finally, under one version of the Australian formula, other payments from the Commonwealth to the states are *deducted* in order to assess the overall fiscal need of the various states. This point relates to the last term of equation 9.6.

Note that what comes out of this formula is a series of numbers that will be used to determine the states' respective *shares* of the overall transfer, G . To repeat, the formula does not determine the aggregate amount of the equalization transfers.

The fact that Australia has taken a fiscal-need approach to equalization, with apparent success, does provide some support for this option.⁵ The remainder of this chapter assesses the advantages and disadvantages of the fiscal-need approach, drawing some further observations from the Australian experience.

FISCAL NEED: AN ASSESSMENT

If one accepts the wording of the new constitutional provision with respect to equalization payments, then a fiscal-need approach makes eminent sense. Giving provinces equal access to revenues does not necessarily give them the ability to deliver comparable bundles of public services. Correcting for differential needs and differential costs is surely appropriate, conceptually. But the problems associated with the fiscal-need approach are practical rather than conceptual. Canada has a fairly long history of equalizing revenues. Over the years the equalization authorities have wrestled, on a virtually continuous basis, with the wide range of problems associated with developing an acceptable revenue data base. Even so, many problems still remain. The introduction of a representative expenditure system would add a full *second* layer to the information-gathering process, and it would probably be years before that process again became manageable.

Easily as difficult as the measurement of the expenditure functions that would be part of any RES would be the determination of the province-specific need (N_{ij}) and cost (C_{ij}) factors associated with each expenditure category. Who would make these delicate judgments? In Australia, this task has fallen to the Commonwealth Grants Commission. As Bird (forthcoming) notes, 'Canadians have watched with envy...the spectacle of a fundamentally non-political body allocating federal grants with the apparent acquiescence of both sides'.⁶ But there can also be major problems associated with the operations of such a body. In 1981 the commission's revisions for the state-specific weights (the B_i above) were rejected by the Australian government. This happened again in 1982, following a further study by the commission. The result was that 'for the first time in 50 years there was no formal institutional provision for fiscal equalization between the states' (Commonwealth Grants Commission 1983, 137). This situation underscores the difficulty of making these interprovincial assessments; it underscores as well the fact that equalization programs, in Canada and elsewhere, acquire political overtones and rationales.

The data-gathering and implementation problems associated with the fiscal-need approach are likely too formidable for it to stand as a viable option during the next set of negotiations over equalization. Nevertheless, I would hope to see Ottawa and the provinces embark on a project to develop a data base for provincial expenditures. Unlike the accounting procedures of the Australian states, provincial accounting procedures in Canada are not now standardized. The development of a set of standardized expenditures would have value apart from any potential use of such data in an equalization program. Empirical techniques are already available that could be used, given a reasonable accumulation of these data, to devise measures of provincial need and cost. If at some future time Canadians come to the view that a fiscal-need approach to equalization is desirable, the availability of such measures would make the system easier to implement.

Finally, I would like to refer again to the 'overarching' nature of my preferred approach to fiscal need (reflected by equation 9.6 and in particular the third term in the equation). It seems to me that there is much to be said for an equalization system that would adjust more or less automatically to changes in the funding of federal-provincial

financial programs. This is, in effect, an argument for 'de-politicizing' equalization somewhat. Given such a system, Ottawa and the provinces would have far greater freedom than they do at present to design the remainder of the interprovincial transfer program with a view, for example, to encouraging efficiency, since the equalization program would ensure that no province found itself, as a result of any such measures, with revenues insufficient to provide a level of public services comparable to the level in other provinces. While I have discussed the concept of an 'overarching' approach in the context of a fiscal-need approach, it deserves to be considered in the context of other options for equalization as well.

This concludes my evaluation of several alternative equalization schemes—macro formulas, two-tier systems and revenue-sharing pools, and fiscal-need approaches—that were bypassed in favour of the RFPS. In some cases, the reasons for bypassing these options were obvious. Nonetheless, each of them has some intrinsic merit and each remains a viable option that may prove valuable somewhere down the road. Before I turn to a description and evaluation of the option that was selected (the RFPS), I shall devote some time to discussing the recommendations of two important 'task forces' that were in effect part of the background to the renegotiation of the equalization program.

NOTES

- 1 However, the concept of expenditure need could be incorporated into the Canada Assistance Plan itself.
- 2 An analogy with the RTS is in order. For each revenue category, national average tax rates are calculated. These are the tax rates used to calculate a province's equalization. If a province increases its tax rate, this will only increase the national average tax rate a bit, depending on the province's share of overall revenues for this category. Much the same point applies to the expenditure standard. Naturally, the larger the province, the more impact it can have on the standardized expenditure level.
- 3 A bit of information relevant to the development of this proposal may be in order. I first raised the proposal in the context of some consulting work for the Department of Finance in 1979-80 and later reiterated it as part of the evidence I presented to the Parliamentary Task Force on Federal-Provincial Fiscal Arrangements (House of Commons 1981, 3:17-3:18). In the summer of 1980 a small group composed of Anthony Scott, Milton Moore, Stefan Dupré, a few Department of Finance officials, and myself met in Vancouver to discuss equalization. One result of this meeting was a very wide-ranging paper by Moore (1981). Moore's paper contains a detailed

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proposal along the lines of equation 9.6 and includes a suggested list of expenditures that would qualify for inclusion in an RES.

- 4 This section is based on Commonwealth Grants Commission (1981).
- 5 As is evident from the appendix to the previous chapter, the German federation also incorporates some aspects of the fiscal-need approach in its interstate revenue-sharing pool.
- 6 It should be noted that Bird is not a fan of the Australian approach and, hence, not one of those who are envious of the 'spectacle'.

10

Task force reports

THE PARLIAMENTARY TASK FORCE ON FEDERAL-PROVINCIAL FISCAL ARRANGEMENTS

One of the most innovative features of the process that led to the renegotiation of the equalization program was the commissioning of a Parliamentary Committee to examine the whole range of issues falling under the purview of the Fiscal Arrangements Act, of which equalization is a component. The committee's report (referred to as the Task Force Report or the Breau Committee's Report, after its chairman, MP Herb Breau) summarizes its role and its broad conclusions as follows:

For the first time in Canadian history, a special parliamentary committee, known as the Task Force on Federal-Provincial Fiscal Arrangements, has held public hearings prior to the renegotiation of the federal-provincial fiscal arrangements that are central to our federal system. Seven MPs representing five regions of Canada and three political parties examined fiscal equalization programs, tax collection agreements, the Canada Assistance Plan, health and medical care programs and support to post-secondary education. They began work in mid-April 1981 and were required to complete their work by the end of July.

The premises, conclusions and recommendations...leave an impression of a system of fiscal relations that is fundamentally sound, but in need of some adaptation to new circumstances. The Task Force did not interpret current challenges to the system as calling for fundamental change in existing arrangements, nor did it consider dramatic

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innovations necessary or appropriate at present. Instead, it has developed a number of recommendations for amendments or adjustments to existing arrangements that, in total, promise a more visible and more solid framework to support a working, co-operative federalism throughout the 1980s. (Parliamentary Task Force on Federal-Provincial Fiscal Arrangements 1981, xi)

Our interest in this report is limited to its views and recommendations relating to equalization payments. Although some of the points described below are far from startling they are worthy of notice because it is very likely that the concept of an all-party Parliamentary Task Force will become a permanent feature of the quinquennial renegotiations of the fiscal arrangements. This being the case, the positions adopted by the 1981 Task Force may have considerable influence on any future Parliamentary commissions.

The Task Force recommendations

The form of equalization payments

After endorsing the principle of equalization as it was laid down in the Constitution Act, 1981 (and subsequently incorporated into the Constitution Act, 1982) the Task Force stated 'that the principle of equalization should continue to be pursued through *direct federal payments to provincial governments*, and that these payments *should be unconditional*' (ibid., 157; emphasis added). This was, of course, a recommendation for the continuation of the *status quo* with respect to these two issues. The recommendation that the grants remain unconditional is no surprise, since, as the report notes, no representations were made that challenged this approach. The reiteration of the principle of direct federal payments is more interesting, since it implies a rejection of interprovincial revenue-sharing schemes. More on this point later.

Equalization and regional disparities

The theoretical chapter (Chapter 3) directed some attention to the relationship between regional disparities and equalization. The argument there was that regional disparities, of and by themselves, are not a justification for an equalization system. However,

equalization is called for to the extent that these disparities lead to differential net fiscal benefits across provinces. It is interesting to note that the Task Force Report takes the same approach:

Nor...is equalization designed to eliminate or reduce directly regional disparities in economic activity or performance. Various economic development programs and economic adjustment mechanisms exist that are designed to ensure the best use of resources across the country, and thereby to reduce disparities in economic activity. Public services made possible by equalization payments will contribute to this goal in education and social services for all citizens. *But equalization payments as such are designed only to offset, or compensate for, the disparities in economic power and activity—not to eliminate those disparities.* (Ibid., 158; emphasis added)

Indeed, in order to stress the significance of this point the report goes on to say: 'It is important to be clear about this objective because some of the present criticism of equalization payments reflects a misunderstanding of what they are intended to accomplish' (ibid.). Needless to say, I heartily endorse the Task Force's position on this issue.

Macro formulas versus representative tax formulas

The Task Force Report devotes considerable attention to the question of whether a macro approach is a meaningful alternative to a representative tax approach. I need not dwell on the analysis that the report brings to bear on this issue, since it is in effect a distillation of points that were raised in Chapter 7. What is relevant here is the fact that the Task Force came down against a macro formulation:

Weighing all [the] considerations, the Task Force has concluded that the representative tax system approach to equalization is conceptually superior to the macroeconomic approach because it is based on a measure of fiscal capacity more closely related to the actual tax practices of the provinces. (Ibid., 162)

It should be noted that in recommending a representative tax system the Task Force was not necessarily backing the RNAS

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approach (i.e., the equalization program then in effect). It was registering support for a system of equalization based not *on a single tax base* (as a macro formula would be) but rather on, say, the thirty-odd tax bases that reflect the tax sources actually utilized by the provinces.

Uniformity

The Task Force was concerned about those features of the RNAS equalization program that might be viewed as arbitrary and, therefore, might undermine the acceptability of the overall program. One such feature was the dichotomous treatment of property taxes under the program. Property taxes for school purposes were included in the formula whereas property tax revenues for municipal purposes were not. The Task Force focused on the Quebec experience in 1980, when this province increased the share of property taxes that went for municipal purposes and decreased the share that was allocated to school purposes. The result was a considerable decrease in equalization payments not only for Quebec but for all the 'have-not' provinces. In essence, the Task Force position on this issue was that equalization payments should not be determined by the manner in which provinces decide to allocate the revenues from property taxes. Accordingly,

the equalization formula should be neutral with respect to the relative weights that provinces choose to give municipal and school property taxes. *The Task Force therefore recommends that property taxes for municipal purposes be included in full in the equalization formula.* (Ibid., 163; emphasis in the original)

The Task Force also took particular exception to the fact that Ontario was excluded from receiving equalization by the personal income override (see Chapter 5). It recognized that this provision was quite arbitrary. It also recognized that the override had encouraged some observers (myself among them) to raise the issue of the funding inequity associated with the program:

Since equalization is financed out of the federal treasury and about 40 per cent of all federal receipts come from Ontario, the

province contributed some \$400 million to the equalization paid to other provinces (arising from the roughly \$1 billion of energy-related equalization), but was denied its own entitlement by the personal income override. (Ibid., 168)

While the Task Force offered no specific solution to this problem, it was firm in its conviction that the equalization program had to be more uniform in its treatment of individual provinces:

This issue [the personal income override] raises difficult problems of perception and may cast some doubts on the continued validity of the measures of fiscal capacity currently employed. ... [T]here seems to be little doubt that any measure specifically aimed at making Ontario ineligible for equalization payments based on a representative tax system could be viewed as arbitrary and unwarranted. *The Task Force therefore recommends that negotiations be directed toward an equalization formula that can apply uniformly to all provinces, without arbitrary or discriminatory special revisions.* (Ibid., 168-69; emphasis in the original)

Fiscal need

Every five-year renegotiation of the equalization formula has had to wrestle with the contention that equalization focuses only on the revenue side of provincial budgets and does not address the fact that it may cost some provinces more than others to deliver a basic per capita unit of public services. The Task Force was no exception, and it noted that several provinces recommended that equalization take explicit account of fiscal need and of the costs of delivering services. Not surprisingly the Task Force recognized that the case was correct *in principle*, but that the measurement problems were formidable. Accordingly:

The Task Force is not at the moment in a position to make recommendations as to how the problems of measuring provincial costs and provincial needs might be overcome and therefore *concludes that, for the time being, equalization payments should continue to be determined exclusively on the basis of disparities in provincial fiscal capacity.* (Ibid., 161; emphasis in the original)

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This statement lends considerable support to my earlier recommendation that research begin *now* to develop a framework for a representative expenditure system. It may well be that a fiscal-need approach will never emerge as the equalization program. However, this decision should be based on analytical considerations and not on a continuing concern that the relevant data have not yet been developed.

The treatment of natural resources

Not much surprise should attend the assertion that the most difficult problem faced by the Task Force was how to deal with the resource revenue component of equalization. In addressing this problem the Task Force was working under more severe constraints than later analysts. This is so because the Task Force Report was tabled in the summer of 1981, *before* the various energy agreements between Ottawa and the western provinces were signed. As a result, the report treads rather gingerly in this area—although if one reads between the lines a bit it does have a fair amount to say about the interaction between energy and equalization.

The Task Force began its analysis by stating that it could not make any specific recommendations regarding the treatment of natural resources revenues because it did not know how petroleum revenues would be split between the federal and the provincial governments. However, it promptly went on to lay down four rules that, in its view, should guide any decisions taken with respect to resource revenues:

- 1 The maximum portion of natural resource revenues that should be included in the equalization formula should be that portion of these revenues that are used for budgetary purposes; that is, as a minimum, the portion sequestered to non-budgetary heritage funds should be excluded.
- 2 To the extent that resource-rich provinces use their resource revenues to provide special services to their citizens that they would not normally offer if they were rich non-resource producing provinces, it would be reasonable to exclude from the formula a portion of resource revenues that find their way into provincial budgets. For example, if a resource-rich province decides to retire all municipal debts, as was done in Alberta, the federal government need not assume that the retiring of municipal debts is a normal provincial

expenditure. In short, *resource revenues should be included in the formula only to the extent that they are used to finance what might be considered normal provincial services.*

3 All resource revenues should be treated in the same manner. That is, no particular type of resource revenue should be excluded from the equalization formula and all resource revenues should be included to the same extent. (Under the current formula, revenues from land sales are excluded, non-renewable resource revenues are included to the extent of 50 per cent, and renewable resource revenues are included in full.)

4 There should continue to be some kind of ceiling or safety net relating to the share of total equalization that may be paid out on account of resource revenues in order to protect the federal treasury against runaway increases in the cost of equalization. (Ibid., 164-65; emphasis added)

Several comments are in order. Point 2 above (particularly the italicized portion) suggests that the Task Force was moving in the direction of defining 'basic' public services, with the idea in mind that only revenues used to provide these basic or normal public services ought to be equalized. Obviously this is a very contentious proposal. It is quite consistent with the approach described in the previous chapter, which by its nature encourages distinctions between expenditures that should go into the formula and expenditures that should not. However, it is not consistent with the efficiency rationale for equalization, since the expenditures (or revenues) left out of the formula *will* influence NFBs across province.

The same reasoning applies to the first point. Excluding revenues that enter the heritage funds of the provinces is consistent with a literal reading of the philosophy underlying equalization (as it is embodied in the constitution, for example). However, to the extent that these sheltered funds induce people to migrate in anticipation of getting a share of the funds in the future (in terms of either greater public services or lower taxes) they alter NFBs and on efficiency grounds ought to be equalized.

The third point is consistent with the overall thrust of the Task Force Report, namely that the equalization program should be made as universal as possible, with uniform treatment for all revenue sources and all provinces.

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A variant of the Gainer-Powrie solution

The Task Force described one approach to equalizing energy revenues that would be consistent with its four rules. Specifically, only the portion of resource revenues that would accrue to the provinces if all sub-surface rights were privately owned rather than publicly owned would be subject to equalization. The Task Force calculated that in these circumstances 20 per cent of total resource revenues would, on average, find their way into provincial coffers, and it is proposed that this 20 per cent enter the formula—part of it in terms of personal income taxes and part of it in terms of business income revenues.

This scheme might be viewed as a variant of the Gainer-Powrie proposal—indeed, it was suggested by Powrie when he appeared as a witness before the Task Force (House of Commons 1981). In fact, however, it is quite a different proposal. Recall that the original Gainer-Powrie proposal suggested that the existing royalties be shared between the provinces and Ottawa on a 70:30 basis, the latter percentage being an estimate of the share of energy revenues that would accrue to the *federal* government if all energy resources were privately owned. The 70 per cent would then be equalized, with the federal government footing the bill from its 30 per cent share. The Task Force, in effect, turned this scheme around. It calculated what *provincial* revenues would be if the rents accrued to the private sector (i.e., 20 per cent) and proposed to put these revenues in the formula.

The Task Force saw four advantages to its proposal:

The main advantage of this solution is that it would eliminate the need to set out arbitrarily the extent to which resources revenues would be included in the formula. It would also eliminate the need for an arbitrary ceiling on the portion of equalization that might be paid in respect of resource revenues... [I]t would permit a uniform treatment of all resource revenues... [I]t would also have the effect of delaying, at least for a few years, Ontario's eligibility for equalization. (Parliamentary Task Force 1981, 165)

All four of these 'advantages' would arise because under this proposal, resource revenues would generate much smaller equalization flows than they generated under the RNAS approach—indeed, the flows would amount to only two-fifths of the resource-related equalization

flows in the Chapter 4 tables, since only 20 per cent rather than 50 per cent of resource revenues would enter the formula. The Task Force hastened to add that this reduction would in large measure be offset by the inclusion of all property taxes in the formula.

While the Task Force does not go so far as to explicitly recommend this approach, its remarks have been interpreted as a recommendation by most observers.¹ Indeed, as we shall see in the appendix to the following chapter, the Government of Saskatchewan essentially adopted this approach as its proposal for equalization.

Minimum guarantees

In concluding its discussion of equalization, the Task Force acknowledged that some of its recommendations could lead to situations in which one or more provinces would find their entitlements reduced. Accordingly,

if any province whose equalization entitlement in 1981-82 is more than \$5 per capita sees its equalization entitlement reduced by more than 5 per cent as a result of the implementation of a revised formula, it should continue to receive 95 per cent of its 1981-82 entitlement until 1984-85 or until the formula yields more than 95 per cent of its 1981-82 entitlement, whichever comes sooner. (Ibid., 171)

This provision is of more than passing interest since a somewhat similar provision was incorporated into the RFPS approach to equalization.

Other significant aspects of the Task Force Report

The rejection of interprovincial revenue-sharing pools

In arguing for *direct* federal payments to the provinces, the Task Force implicitly ruled out the concept of an interprovincial revenue-sharing arrangement. Nonetheless, it did devote considerable attention to resource revenues and resource revenue-sharing pools. It noted that virtually all of the witnesses appearing before it recommended a higher price for domestic energy, which would imply substantially higher resource revenues and equalization flows. If the federal government were the primary beneficiary of these rising resource

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revenues, then it would have sufficient funds to finance the expanded equalization flows. If the provincial governments were the principal beneficiaries, then, many of the witnesses argued, some sort of interprovincial revenue-sharing or redistribution pool would be in order.

The Task Force had a great deal of difficulty with transfer schemes that bypassed Ottawa. How could they be guaranteed? What would happen if an election in a contributing province were fought on the issue of withdrawing from the scheme? Would the provinces be willing to have such a scheme enshrined in the constitution? These questions do not appear in the report proper, but they do reflect the range of concerns aired by the members of the Task Force in response to witnesses who argued in favour of revenue-sharing schemes. In the end, the Task Force rejected the notion of interprovincial sharing outright:

[T]he Task Force believes it is necessary to reaffirm federal responsibility for interpersonal and interregional distribution. We do not consider this role as one that can properly or appropriately be assumed by the provinces. (Ibid., 169)

The Task Force's negative views of the rent-sharing proposal put forward by Helliwell and Scott and of my own two-tiered proposal were discussed in Chapter 8. The Task Force did not even suggest that it might be appropriate to reconsider these options during future negotiations of the equalization program—a suggestion it did make in respect of a number of other contentious proposals.

The imputation of hydro rents

The Economic Council of Canada, in part of its testimony before the Task Force, argued for the inclusion in equalization of those resource rents associated with hydroelectricity that are passed on to consumers in the form of below-market prices. It supported this argument with a massive set of data relating to various estimates of these imputed rents and their implications for equalization (some of these data were reproduced in Chapter 8). The Task Force's response was that

although it would be conceptually sound to include at least a portion of these imputed rents in the equalization formula,

greater experience in measuring them should be acquired before they are effectively taken into account in computing provincial equalization entitlements. The Task Force therefore concludes that such rents ought not to be included in the equalization formula for the 1982-87 period but that more research should be carried out on the subject for consideration in negotiations to establish the arrangements for the 1987-92 period. (Ibid., 159, emphasis added)

Note, however, that this request for more research refers to the incorporation of these hydro rents into the equalization formula and *not* to the view of the rents taken in Chapter 8—that is, as a component of an interprovincial revenue-sharing pool.

Section 125

Perhaps the most surprising and controversial (but in my opinion probably the most welcome) recommendation of the Task Force was that Section 125 of the constitution be a matter for further discussion and consultation. This issue is dealt with not in the equalization chapter but rather in the last chapter of the report, 'Emerging Issues in the Canadian Federal System'. Under Section 125 of the constitution ('No Lands or Property belonging to Canada or any Province shall be liable to Taxation'), provincial Crown corporations escape federal tax and vice versa. The report notes, correctly, that this provision could have a 'substantial impact on the balance between public and private enterprise in Canada in the future (ibid., 191). More generally:

It has been suggested that if the provinces' position *vis-à-vis* Section 125 is fully supported by the courts (including the Supreme Court of Canada), the producing provinces could turn major portions of their oil and gas industries into Crown corporations. This would enable these provinces to shelter a large part of their oil and gas revenues from federal taxation. Since all property of provinces is immune from federal taxation, it may be worthwhile for the provinces generally to 'nationalize' other industries so as to pre-empt the federal government from deriving revenues it believes it is justified in collecting. (Ibid.)

The report goes on to focus on the impact of Crown corporations on equalization. At present their profits enter the equalization program as part of business income. The report notes that Crown corporations may offer goods and services at below-market prices, lowering their profits and decreasing their tax base for business income revenues. As was noted in Chapter 5, one possible solution to this problem is to impute a profit to these organizations based, say, on profit ratios for similar activities in the private sector. The report remarks that if 'provinces set up more and more Crown corporations and these organizations distribute their "profits" to provincial residents through subsidized prices, the "representative tax system" in the equalization formula may become less representative' (ibid., 192). True enough. But then, in what can only be construed as an excess of optimism, the report adds: 'This would be the only serious loophole remaining in the equalization system if the Task Force's recommendations in Chapter VII [the equalization chapter] were implemented' (ibid.).

The Section 125 problem is, in fact, a critical one. While it has direct equalization overtones, it is more important in its indirect effect on equalization—that is, in its influence on the manner in which revenues are allocated not only between the two levels of government but between the private and public sectors as well. This whole area is one of the sacred cows of the federation. The Task Force must be given full credit for being willing to address the issue. More credit still is warranted for its suggested solutions:

Should provincial or federal Crown corporations become more common, governments may at some point have to reconsider the application of section 125 of the BNA Act. An amendment to the Constitution permitting taxation of Crown corporations may be appropriate. Alternatively, the federal and provincial governments could agree to reciprocal taxation of Crown corporations. No doubt both courses of action would be highly controversial. Nevertheless, the implications of a potentially large expansion in the number of Crown corporations would seem to be a matter for federal-provincial and public discussion. (Ibid.)

Summary

The Parliamentary Task Force was an important undertaking in several respects. As was noted earlier, it represented a new element in the renegotiation process—one that is likely to be repeated in the future. By conducting public hearings, it opened up considerably the range of views that could be brought to bear on the fiscal arrangements in general and equalization payments in particular. It is probably not too surprising that the Task Force came down basically on the side of the *status quo*. After all, it was a political (albeit all-party) creation. One of its purposes was to ensure that equalization remains an accepted and respected part of the Canadian fabric. Most of its recommendations can be seen in this light—as uniform a treatment as possible; reducing the role played by energy to make the program relatively immune to future energy shocks and to prevent Ontario from falling into the category of a recipient province; extending coverage to property taxes (desirable in its own right and also as an offset to the drop in equalization arising from the energy recommendation); providing minimum floors for provinces that would fare relatively poorly under any new scheme. Finally, despite this endorsement of the *status quo*, the Task Force did leave the door open for future reform in several key areas. All in all, the Task Force Report is a valuable contribution.

FINANCING CONFEDERATION: THE ECC REPORT

The Economic Council of Canada's report, *Financing Confederation: Today and Tomorrow* (1982), covers basically the same territory as the Task Force Report. However, the Council document's coverage of equalization reflects the much greater input of both time and resources that went into its preparation. It is simply not possible to summarize the substantial theoretical and empirical analysis in the report in a satisfactory way, and I shall attempt no such summary here.² The reader interested in acquiring further knowledge of the intricacies of equalization is encouraged to take the time and effort to read not only the Council report itself but some of the excellent background studies as well.

What is probably of the most use for present purposes is to focus on some of the principal areas where *Financing Confederation* has contributed to the knowledge and understanding of equalization.

The theoretical contribution

First and foremost, the thrust of the Council study is to develop a theory of equalization. The architects of this underlying theory are Robin Boadway and Frank Flatters, and their ideas form the core of the theoretical section of the Council's equalization chapters.³ All of the Boadway-Flatters and Council emphasis is on the economic justifications for equalization. My own view is that the study puts far too much emphasis on the equity as against the efficiency arguments for equalization, and in the broader context too much emphasis on the economic as distinct from the political and constitutional underpinnings of equalization.⁴ But few would question the substantial impact that this work has already had and is going to have over the next few years.

The empirical contribution

The Council also broke important new ground in terms of the massive data collection and quantitative effort it undertook. Much of this effort was directed toward estimating the implicit rents from hydro facilities resulting from the sale of electricity at below-market rates; one set of estimates was used in Chapter 8. The Council study also presents estimates for a wide range of alternative equalization formulas. A final aspect of the Council's empirical contribution is the background study by Stanley Winer and Denis Gauthier (1982), which investigates the interaction between fiscal structure and internal migration. The efficiency case for migration rests upon the notion that differing NFBs across provinces will result in rent-seeking or fiscally induced migration. In order to assess the practical relevance of the efficiency case, one must have evidence of the degree to which individuals respond to these NFBs. Providing this evidence is the purpose of the Winer-Gauthier background piece; a brief summary of the study's findings was given in the penultimate section of Chapter 3.

In short, the Council's theoretical and empirical research are closely intertwined, and together they represent both a significant advance in knowledge and an important impetus to future research.

The Council's recommendations for equalization

Given the amount of effort that went into the preparation of the ECC study, the paucity of recommendations relating to equalization is rather disappointing. In all, there are only three specific recommendations—inclusion of all property taxes in the formula, reinclusion of revenues from the sale of Crown leases, and uniform treatment of provinces (e.g., removal of the personal income override). These suggestions are hardly startling, particularly given that the Council's report was published in February of 1982, well after the Task Force Report and, more important, well after the federal government's November 1981 budget proposal of an 'Ontario standard' for equalization (see Chapter 11).

There is one further formal recommendation—that the treatment of energy resources in any new formula should be constrained until a better way of treating resource revenues is worked out. While it does not cast them in the form of recommendations, the Council does enunciate four principles that it feels should apply to any longer-term approach to equalizing resource revenues:

- all natural resource revenues distributed by provincial governments to residents of a province should be taken into account in the equalization formula. It is immaterial whether this distribution takes place directly in the form of goods and services and/or tax relief, or indirectly in the form of subsidized prices;
- resource revenues should be equalized when they are distributed as income to residents of the provinces. Thus funds deposited in heritage, or other savings, funds should not be equalized; they should only be subject to equalization when they commence to provide benefits to provincial residents;
- the amount of provincial natural resource revenues that is subject to equalization should approximate the federal taxes that would be paid, on average, if resource revenues were distributed to provincial residents and treated as personal income;
- there should be no artificial limits, as at present, on the extent to which eligible natural resource revenues are equalized. (Economic Council of Canada 1982, 122)

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These are very far-reaching principles. The first argues for a comprehensive approach to measuring resource revenues. For example, these revenues would include the implicit rents arising from, say, the Ontario and Quebec policies towards pricing hydro. It is hard to disagree with this. The second point is more controversial. Funds set aside for a rainy day (in heritage trusts) should be equalized only when they are brought back into provincial budgets. From an efficiency point of view, this approach would be correct only if no fiscally induced migration were triggered by the mere existence of these trusts. However, it is clear from the third point that the Council is not particularly worried about efficiency and the equalization of NFBs across provinces. To put the matter in a more positive light, underlying the third principle is the notion that *narrow-based* horizontal equity ought to prevail as far as resource rents are concerned. The constitution has assigned property rights to resource revenues to the provinces and these revenues merit equalization only insofar as their treatment for federal taxation purposes leads to inequities. The suggestion is that these revenues ought to be treated as income for federal income tax purposes. Because they are not so treated now, there is a role for equalization, namely the equalization of that portion of the revenues equal to the federal tax that would be paid on the revenues if they were treated as personal income. Depending on which part of the Council's report one looks at, the federal rate is assumed to be 25 per cent or 30 per cent. Given that 50 per cent of resource revenues entered the RNAS formula, the Council was in effect recommending that resources play a much smaller role in the equalization program.

I find all of this quite remarkable. After devoting so much effort to making the economic case for equalizing NFBs, the Council ended up with a call for equalization based not on the existence of differential NFBs, but rather on the lack of comprehensiveness of the federal tax system. As was pointed out in Chapter 3, even if the federal tax base were broadened to take of these currently nontaxable benefits into account, *NFBs would still differ widely across provinces*. I suspect that the Council found itself caught between two principles—equalizing NFBs and acknowledging that the constitution assigns property rights over resources to the provinces—and it opted for the latter. With respect to nonresource revenues, the Council came out in favour of the *status quo*, which at that time was

the RNAS. In one sense its position was inconsistent. In spite of the underlying theory and its focus on individuals, neither portion of its proposed equalization formula took the form of a revenue-sharing pool; that is, the Council opted for 'gross' rather than 'net' schemes, to use the Council's jargon. There is, however, one way in which one can argue that the Council's position was a consistent one. Basically, the Council argued in principle for broad-based horizontal equity throughout. Hence the RNAS for nonresource revenues. It would have argued the *same way* for resource revenues, except that the constitution assigned property rights over resources to the provinces. Hence, narrow-based horizontal equity was as far as the Council could go in terms of resource revenues and rents.

In view of the Council's approach to resources, I am perplexed by its very harsh treatment of the Task Force's compromise proposal for the treatment of resource revenues. The reader will recall that the Task Force recommended the equalization of 20 per cent of all resource revenues, on the grounds that this percentage is what would accrue to the province if the revenues originally flowed to individuals. The Council's report addresses the proposal in this manner:

This proposal would, in effect, apply the broad-based view of horizontal equity, noted earlier, to some hypothetical fiscal benefits from resources. We see no grounds based on equity or efficiency for choosing this method of equalization. In our judgment, it is questionable on two counts. First, we feel that it is the narrow-based view of horizontal equity (based on property rights issues) that is appropriate for equalization of resource revenues in the Canadian federal system. Second, if an equalization program is to achieve horizontal and vertical equity, it must be based on *actual*, not hypothetical, fiscal benefits created by provincial governments. Thus, instead of applying full equalization to some hypothetical fiscal benefits (as would happen if one were to calculate provincial taxes on resource revenues distributed as income), the analysis developed in this chapter provides strong reasons for applying partial equalization (determined as the overall marginal federal tax rate in a province) to actual resource revenues distributed as private income to provincial residents. (Ibid., 34-35)

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I have no problem with the Council's theorizing. The problem resides at the practical level. In describing the Council's own specific equalization formula, the report uses the following case (ibid., 46-47). From total provincial resource revenues exclude the heritage fund portion, which the Council estimates at 30 per cent. Then apply the federal marginal tax rate (assumed to be 25 per cent) to the remaining 70 per cent, for an overall federal tax rate of 17.5 per cent. Hence, under the Council's proposal, 17.5 per cent of resource revenues would enter the formula. Given a 30 per cent marginal rate (which the Council used elsewhere in its study), 21 per cent of resource revenues would be eligible for equalization. Thus, when it comes to implementing an equalization formula, the Council's proposal with respect to resources is, for all intents and purposes, *identical* to the Task Force's proposal—that is, 17.5 to 21 per cent for the former and 20 per cent for the latter.

While the Council was correct to point out that the theoretical underpinnings of the Task Force proposal may have been rather weak, it should also have pointed out that the practical implications of the Task Force proposal for the workings of equalization were *essentially identical* to the implications of its own proposal.

These comments on the Council's document have been somewhat harsh—perhaps too harsh, in light of the fact that the longer-term implications of the study are likely to be very positive.

CONCLUSION

This completes Part V of the study, a review of some alternative approaches to equalization. Two other proposals could have been described and evaluated in this section—those put forward by the provinces of Saskatchewan and Quebec. However, since these provinces' proposals were designed as responses to the federal government's first equalization initiative—the Ontario standard—they will be dealt with following the discussion of that initiative.

The remainder of the book is devoted to an analysis and evaluation of our new equalization formula, beginning with the Ontario standard and culminating with the passage of the 1982 Fiscal Arrangements Act incorporating the five-province standard for equalization.

NOTES

- 1 And it has also been subjected to considerable criticism. Some of the theoretical defects of this proposal were raised in Chapter 8 above. For more detail see Boadway, Flatters, and LeBlanc (1983).
- 2 For a review of the Council document, see Scott, ed. (1982).
- 3 See also Boadway and Flatters (1982).
- 4 Whereas Chapter 3 above devoted some attention to the 'federalist' and 'nationhood' rationales for equalization. Nonetheless, the analysis in Chapter 3 owes a large debt to the Council's work.

PART VI

THE 1982-87 EQUALIZATION FORMULA:

THE REPRESENTATIVE FIVE-PROVINCE STANDARD

11

RFPS: the background

Chapter 11 provides a brief overview of the equalization program and the RFPS. It begins with a discussion of the philosophy underlying the federal government's approach to the negotiations relating to equalization. The source for this discussion is the November 1981 federal budget paper *Fiscal Arrangements in the Eighties: Proposals of the Government of Canada* (MacEachen 1981). The second part of the chapter focuses on the equalization proposal incorporated in the 1981 budget—the 'Ontario standard'. The final section traces the developments that led Ottawa to jettison the Ontario standard and to adopt the RFPS.

The next three chapters are devoted in turn to a description, an analysis, and an evaluation of Canada's new equalization program, the so-called 'representative five-province standard' or RFPS approach to equalization. The present chapter provides the background to the adoption of the RFPS. It begins with a discussion of the philosophy underlying the federal government's approach to the negotiations relating to equalization. The source for this discussion is the November 1981 federal budget paper *Fiscal Arrangements in the Eighties: Proposals of the Government of Canada* (MacEachen 1981). The second part of the chapter focuses on the equalization proposal incorporated in the 1981 budget—the 'Ontario standard'. The final section traces the developments that led Ottawa to jettison the Ontario standard and to adopt the RFPS.

Chapter 12 focuses on the mechanics of the RFPS. The analysis includes estimates for 1982-83 relating not only to the new program, but also to the equalization flows that would have been generated under the Ontario standard and under a continuation of the RNAS program.

Chapter 13 evaluates of the new equalization program, examining it in the light of the RNAS system, the options forgone, and the theoretical underpinnings of equalization.

SOME UNDERLYING FEDERAL PRINCIPLES

In setting the stage for the equalization proposals embodied in the November 1981 budget, the federal budget paper outlined four criteria

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that the federal government felt should apply to any new equalization formula:

— Payments should make it possible for all provinces to provide their residents with a reasonable level of public services at reasonable levels of taxation.

— Payments should be distributed according to financial capacity, with all provinces treated on a comparable, non-discriminatory basis.

— The overall level of payments generated by the formula should be reasonably stable and predictable from year to year.

— The formula should remain sensitive to variations over time in the fiscal capacity of each province so that the revenues of any recipient province after equalization will not exhibit marked year-to-year irregularity. (MacEachen 1981, 35)

The second of these points obviously refers to the personal income override, which arbitrarily excluded Ontario from becoming a recipient under the RNAS program. The federal government's position on this point mirrored the recommendation of the Parliamentary Task Force, made earlier in the year, that all provinces should be treated consistently under the provisions of any new formula. Nevertheless, some way had to be found to keep Ontario from becoming a recipient. Otherwise the result of consistency would be a significant rise in overall equalization flows.

In order to pave the way for a set of proposals that did indeed exclude Ontario, the federal budget paper drew rather selectively from the provincial budgets of Ontario and British Columbia:

The treatment of Ontario was raised by the government of that province in a 1980 budget paper. The paper questioned whether Ontario's fiscal capacity was below average, asserted that its public services were not below average and suggested that a formula which resulted in Ontario being eligible might well be too generous and result in 'over-equalization'. It concluded that there was a clear and urgent need to review the formula. (Ibid., 15)¹

The Government of British Columbia, in commenting on this issue in its March, 1981, budget, stated: '...the national

equalization program must be examined. We have to ensure a secure source of fiscal resources in less prosperous provinces but, equally, we must avoid the absurd situation where a province as economically strong as Ontario qualifies for equalization payments'. (Ibid.)²

In a similar fashion the federal budget paper mustered support from various quarters for the maintenance of the representative tax system approach to equalization, as distinct from, say, a macro formula or a two-tiered approach:

Having examined various methods of measuring provincial fiscal capacity, the [Parliamentary] Task Force concludes that the representative tax system approach used since 1967 is 'conceptually superior' because it better reflects the actual tax practices of the provinces. As a means of improving the 'representative' nature of the system, the Task Force recommends that property taxes for municipal purposes be brought into the formula. (Ibid.)

The most recent provincial statement about equalization appears in the communique issued by the premiers following their twenty-second annual conference in Victoria last August: '...The Premiers agreed that a representative tax for calculating payments is the most appropriate system'. (Ibid., 14)

Finally, the federal budget paper quoted from the submission of the Government of New Brunswick to the Parliamentary Task Force on Federal-Provincial Fiscal Arrangements:

New Brunswick supports the fundamental importance of the equalization program. The current representative tax system of equalization has served Canada well and should be retained. (Ibid., 15)

Thus, from these principles and carefully selected observations, one can piece together an underlying federal philosophy relating to equalization:

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- The representative tax system should be maintained and broadened to include all municipal property taxes.
- The personal income override should be removed.
- The program should be designed so as to exclude Ontario.

But how was the federal government to incorporate all of this into an equalization program? The answer was the Ontario standard.

THE ONTARIO STANDARD

The characteristics of the 'Representative Ontario Standard' (henceforth the ROS), as outlined in the 1981 federal budget paper, were to be as follows:

- Provincial fiscal capacities would continue to be measured in terms of a representative tax system.
- The revenue sources to be equalized would henceforth include (a) all provincial/local revenues that were previously subject to equalization, (b) all natural resource revenues (i.e., the amount of energy revenues entering the formula would be raised from 50 per cent to 100 per cent), and (c) all local revenues from taxation (the major change here would be the inclusion of property taxes levied for municipal purposes).
- The level of equalization would be determined by reference to an 'Ontario standard'. If any province had a lower per capita yield from the representative tax system than did Ontario, it would be entitled to an equalization payment to make up the difference.
- The personal income override would be removed. Henceforth a province could receive equalization even if its personal income per capita were above the national average.
- The resource ceiling would be removed. Henceforth the contribution of resource-generated equalization would be allowed to exceed one-third of total equalization.
- Total equalization payments would not be allowed to grow more rapidly than the growth in the gross national product.

Now to the details.

The formula for the Ontario standard

Under the RNAS formula, the per capita equalization for each province for each revenue source could be expressed as follows:

$$\begin{array}{lcl} \text{Equalization} & & \\ \text{per} & = & \text{national} \\ \text{capita} & & \text{average} \end{array} \left(\begin{array}{lcl} \text{national average} & & \text{province's own} \\ \text{base per} & - & \text{base} \\ \text{capita} & & \text{per capita} \end{array} \right) \quad (11.1)$$

which is, of course, equation 4.2 of Chapter 4. The formula for the Ontario standard simply replaces the first term of the bracketed expression:³

$$\begin{array}{lcl} \text{Equalization} & & \\ \text{per} & = & \text{national} \\ \text{capita} & & \text{average} \end{array} \left(\begin{array}{lcl} \text{Ontario} & & \text{province's own} \\ \text{base per} & - & \text{base} \\ \text{capita} & & \text{per capita} \end{array} \right) \quad (11.2)$$

The empirical characteristics of the ROS will be explored in detail in the following chapter, in the context of the evolution of the RFPS. However, the following features of the scheme merit attention here.

- 1 For Ontario, the value of the bracketed term in equation 11.2 will *always be zero*. Consequently, Ontario can never receive an equalization payment.
- 2 While in principle the scheme equalizes resource revenues in full (i.e., 100 per cent versus 50 per cent under the RNAS formula), in practice it makes them a *trivial* part of overall equalization. This occurs because Ontario's tax bases per capita for such things as oil and natural gas are *effectively zero*. Thus, even though the resource revenues eligible to enter the equalization formula are doubled, the resulting equalization flows are minimal because Ontario has such a small base per capita. *Indeed, for most of the 'have-not' provinces, equalization falls as a result of the resource categories! To put the matter differently, under the Ontario standard, overall equalization would be greater if energy revenues were excluded from the formula!* Thus the decision to remove the resource ceiling was essentially a cosmetic gesture.
- 3 What the ROS does succeed in doing is to remove virtually *all* of the arbitrary restrictions that were in place under the RNAS formula

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(e.g., resource revenues treated differently than nonresource revenues, the personal income override, the resource cap, the exclusion of major local tax revenues). In this respect it represents a brilliant manoeuvre: the comprehensiveness and generality of the formula is now fully restored.

4 Despite all of the above features, 1982-83 equalization payments under the ROS are considerably larger than 1981-82 payments under the RNAS. However, this increase is in *aggregate* flows. Two provinces, Quebec and Manitoba, receive reduced payments. In other words, the chief beneficiaries of the ROS are the Atlantic Provinces. The principal reason why equalization does not plummet is that, for most of the revenue categories other than energy, equalizing according to an Ontario standard is much more generous than equalizing according to a national average standard. In other words, Ontario's base per capita is larger than the national average base per capita for most of the nonenergy revenue categories and, therefore, equalization flows increase for these revenue sources. The inclusion of all property taxes also generates a significant increase in equalization flows.

5 The only restriction in the ROS formulation is that equalization, *in total*, cannot grow at a rate greater than the rate of GNP growth. The initial data accompanying the ROS proposal indicated that this cap would be binding for 1982-83, the first year of the formula.

6 In terms of the alternative theoretical underpinnings of equalization, namely the equalization of NFBs on the one hand and the provision of reasonably comparable public services at reasonably comparable tax rates on the other, it is obvious that the ROS opts for the latter result. The fact that the revenues of the energy-rich provinces may be mushrooming is irrelevant to the ROS formula: all that matters is the level of Ontario's overall revenues per capita. In other words, Ontario's budgetary position is the *standard* with which all other provinces' fiscal capacities are compared.

THE PROVINCIAL REACTION

The provincial reaction to the Ontario standard was as swift as it was unanimous—the provinces did not like it, to put it mildly. It is important to recognize that the provisions relating to equalization were only one source of provincial concern with respect to the

November 1981 fiscal arrangement proposals. As was noted in the historical overview in Chapter 2, Ottawa's decision to remove from established program funding the two tax-point equivalents associated with the 'revenue guarantee' was viewed by many provinces as nothing short of an outright violation of the 1977 fiscal agreements. However, my focus here is only on the provinces' reaction to the equalization program. Only one month after the federal government unveiled its proposal the provincial finance ministers responded with the *Provincial Report on the Revised Equalization Program Proposed in the November 12, 1981 Federal Budget*. The thrust of this response was that, 'on balance and overall, the provinces believe that the changes being proposed may represent a *backward step*—undermining the key elements of a formula which has served Canada well for a decade and a half' (Provincial Finance Ministers and Treasurers 1981, 5). The provinces' concerns centred on four features of the new proposal: (i) the Ontario standard itself, (ii) the measurement of fiscal capacity, (iii) the disincentive to resource development in equalization-receiving provinces, and (iv) the GNP 'cap'. I shall deal with each of these points in turn. As will become evident, many of these provincial concerns remain relevant to the equalization program actually adopted for 1982-87, namely the representative five-province standard.

The standard of equalization

The provinces aired two concerns relating to the substitution of the Ontario standard for the national average standard. The first was rather obvious. Would the use of a single province, even one as large as Ontario, result in more instability in equalization flows than would a national average standard? In a period of instability in raw material prices and major economic adjustment, would not a national average standard provide for a 'smoothing' effect on equalization flows? The answer is not clear. It is true that an Ontario standard is very susceptible to the business cycle, in that the corporate and personal income tax bases will move with the cyclical fluctuations. However, it is also true that major swings in resource revenues would have a very limited impact on equalization flows under an Ontario standard. But what brought home the problem of the Ontario standard's potential instability was Quebec Finance Minister Jacques

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Parizeau's remark that it might turn out to be more beneficial overall to Quebec if its development programs were used to support industry *in Ontario rather than in Quebec*: as Ontario goes, so goes equalization under the ROS!

A more sophisticated point made by the provincial treasurers was the following. Suppose that over time the resource-rich provinces derived increasing revenues from their resources and used them to lower tax rates on nonresource categories. Specifically, suppose that Alberta were to channel more energy revenues into its budgetary operations and fewer revenues into the Heritage Fund while it reduced tax rates on, say, corporate and personal income. (Note that this provincial position paper was prepared in late 1981, when there was every reason to expect that world energy prices would continue to escalate.) Equalization would fall as a result. In terms of equation 11.1, this decrease would occur because the 'national average tax rate' (i.e., the ratio of total revenues to the total base) would fall for personal and corporate income. The Ontario standard was all the more vulnerable to this criticism because under it energy resources would effectively generate no equalization flows.

Measurement of fiscal capacities

The provinces' first concern relating to the measurement of fiscal capacities was also rather obvious. Despite the fact that there would be a more comprehensive treatment of resource revenues, this change, when combined with the introduction of the Ontario standard, would

have a negative effect on resource-related equalization payments because Ontario lacks a large-scale natural resource base against which other provinces' taxing capacities would be measured. Federal estimates indicate that resource-related equalization payments would effectively be eliminated under the proposed formula for 1982-83. In contrast, the most recent estimates for 1981-82 under the present formula indicate that resource revenue equalization accounted for close to 30 per cent of total entitlements. (Ibid., 7)

This concern related as much to the standard of equalization as it did to the definition of fiscal capacities.

The provinces' second response in this connection was to welcome the extension of coverage to include all municipal revenues from taxation but, at the same time, to point out that this still excluded a substantial portion of local government revenues—those arising from sources other than taxes.

Disincentives for economic development in equalization-receiving provinces

The development-disincentive effects of the RNAS version of equalization would be greatly magnified under an Ontario standard. This is so for three reasons. First, 100 per cent of resource revenues would enter the formula, compared with 50 per cent under the RNAS approach. Second, because Ontario's resource base is not that substantial, many of the recipient provinces would be 'have' provinces for resource revenues unlike the case with the previous program where the comparison was to the national average tax base. The third point, related to the second, is that the definition of tax bases for resources would become correspondingly more important. Consider mineral revenues, for example: a problem 'arises because of the allocation of the tax base on the basis of a value added calculation which may bear no relationship to the economic rent generated by a province's mineral industry' (ibid., 13). Concern about this problem did not begin with the ROS proposal. It was argued in Chapter 5 that it is becoming increasingly important when defining tax bases to take into account the differential rent potentials associated with different deposits of oil, gas, and minerals. Under the ROS scheme (as under the RNAS), 'a province with an extremely rich mineral resource is assumed to have the same capacity to collect economic rent from the resource as is a province with a more economically marginal mineral endowment' (ibid.). The difficulty would be compounded under the ROS because a province with a marginal resource deposit could well be designated as a 'have' province for this source, whereas this was less likely under the RNAS.

Taken together, the provinces' concerns implied that under the ROS it would be possible for a province to lose substantially more in equalization payments than it collected in revenues from a given resource category. Table 11.1, which presents data for Newfoundland's mineral operations under the RNAS and ROS formulas and

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TABLE 11.1

Mineral revenue entitlements under the ROS: Newfoundland 1982-83 (\$ million)

	RNAS	ROS
A. Mining taxes and royalties	+ 17.5	+ 17.5
B. Equalization	- 10.4	- 17.5
C. Equalization assuming that Newfoundland shuts down its mineral sector	+ 31.5	+ 66.0
D. Total equalization cost of earning the mining taxes and royalties (C - B)	+ 41.9	+ 83.5
E. Net benefit from mineral production (A - D) ^a	- 24.4	- 66.0

^a Excludes other benefits (e.g., employment income and the resulting tax take).

SOURCE: Provincial Finance Ministers and Treasurers (1981, 14).

which is reproduced from the provincial finance ministers' report, illustrates this point very clearly. (Note that the figures in Table 11.1 do not correspond very closely with those given in the next chapter, in part because the latter are based on more recent data, including substantially revised population data. This need not concern us too much, since the *principle* addressed in Table 11.1 remains intact.)

The first row of the table presents the value for Newfoundland's mineral royalties and taxes. Under the RNAS program, Newfoundland loses \$10.4 million in equalization because of these revenues; under the ROS, \$17.5 million. The larger equalization loss under the ROS reflects (a) the altered standard, (b) the fact that 100 per cent of mineral revenues now enter the formula, and (c) some changes in the definition of the base. If Newfoundland shuts down its production entirely—that is, if it never developed its mineral base in the first place—it receives \$31.5 million in equalization under the old system and \$66.0 million under the Ontario standard. Overall, the equalization Newfoundland forgoes because it has developed this

resource base is \$41.9 million under the RNAS and \$83.5 million under the ROS. Excluding other benefits (such as employment and income taxes), the net return to Newfoundland of collecting \$17.5 million in royalties and taxes from minerals is -\$24.4 million under the RNAS scheme and -\$66.0 under the Ontario standard. Under the latter standard, in other words, *for every dollar Newfoundland generates from taxation on its mineral resources it loses close to five dollars in equalization*. The provincial report concluded:

While there can be no objection to the loss of a certain amount of equalization as a province develops its own economy, the above situation, in which the province loses close to five dollars in equalization for every dollar of own source revenues which it collects, is clearly inequitable. In fact, it would seem logical for the trade-off of resource revenues against equalization to be substantially less than 100 per cent in order to provide a positive incentive for development and in recognition of the very real costs to provincial governments of providing social and economic infrastructure in remote communities based on non-renewable natural resources. (Ibid., 14)

Again, the adoption of the Ontario standard would not have created the problem described here—it would only have magnified it. The question of the appropriate definition of tax bases for resources of differing rent potential and the issue of gross versus net revenues were highlighted in Chapter 5 as serious problems associated with the RNAS system. To anticipate the next chapter somewhat, these problems have not been eliminated under the RFPS program, but some measures have been taken to reduce their impact.

The GNP cap

Finally, the consensus report of the provinces opposed the ROS provision whereby equalization growth would be limited to the rate of growth of GNP, particularly since this cap was expected to be binding in the first year of the program's operation.

OTHER ASPECTS OF THE RENEGOTIATION PROCESS

The Quebec and Saskatchewan proposals

Two other equalization proposals were tabled at the December 1981 Federal-Provincial Meeting of Finance Ministers and Provincial Treasurers—those submitted by Saskatchewan and Quebec. Both proposals were highly interesting in that they too were willing to downplay the role of energy revenue in the equalization formula. The Saskatchewan proposal can be referred to as RNAS-20—that is, the RNAS system with 20 per cent of resource revenues entering the formula. Even though this 20 per cent figure for resource eligibility was consistent with the recommendations of both of the task-force reports discussed in the preceding chapter (albeit for different theoretical reasons), the Saskatchewan proposal did not make use of this coincidence of views to buttress its position. Rather, it appears that the proposal was geared to the twofold recognition that (a) restraint was the order of the day and therefore equalization from resources needed to be scaled down and (b) it was desirable to preserve the RNAS principle. Quebec's proposal was far more detailed. However, it too addressed itself to devising ways in which the impact of resource revenues on equalization flows could be lessened. Essentially, it argued that the fiscal capacity deficiencies and excesses for categories such as energy should be defined not in terms of the tremendous variations in these resource bases but rather in terms of a province's overall fiscal deficiencies and excesses with respect to the nonresource-revenue tax bases. This approach made the Quebec proposal resemble a *macro equalization* scheme for equalizing resource revenues.

The detailed elaboration of these proposals is relegated to an appendix to this chapter. This is not done to downplay these proposals, one of which, Saskatchewan's RNAS-20, remains a viable option for the 1987 arrangements. However, given the very complicated nature of the proposals (particularly the Quebec proposal), a detailed evaluation would be too disruptive to the flow of this chapter.

New population figures

In early 1982 a new feature entered the equalization picture. The 1981 census figures for provincial populations were released. The new figures for five of the recipient provinces (Manitoba and the four Atlantic Provinces) were considerably *lower* than those that had been used for interim calculations of equalization for fiscal years 1980-81 and 1981-82. As a result, 'over-equalization' had occurred and collectively these provinces owed the federal government an estimated \$217 million. Thus, the existing concerns surrounding the process of renegotiating the equalization formula were magnified for these five provinces.

The February 1982 First Ministers' Conference

The ill-fated First Ministers' Conference in February 1982 was the last opportunity for real debate over the new fiscal arrangements, which were slated to take effect as of 1 April 1982. The richer provinces' (British Columbia, Alberta, Ontario) concern centred on Ottawa's proposal to remove an amount of cash, equal to the compensation for the revenue guarantee, from the financing of the established programs (see Chapter 2 for more detail). For the remainder of the provinces, equalization too was a matter of major concern. As an 'observer' at this conference, my impression was that Ottawa skilfully played off the 'have-not' provinces against the 'have' provinces and that its instrument in all of this was the set of modifications it introduced to its original equalization proposal—modifications that converted the Ontario standard into the representative five-province standard. For example, at one point in the conference there appeared to be an agreement among high-ranking officials from all provinces to allow the existing set of fiscal arrangements to grow at 12 per cent for fiscal year 1982-83, making time for further studies and negotiations with respect to both equalization and established program financing (EPF). This consensus evaporated when several of the provinces did a bit of back-of-the-envelope calculating and found that what they would lose from EPF as a result of Ottawa's proposals would be more than made up by gains from the RFPS, particularly in light of Ottawa's new provision

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'forgiving' the population-related overpayments and removing the GNP cap for fiscal year 1982-83 (see below). The general point is simply that the whole process of renegotiating these fiscal arrangements awaits the pen of an enterprising political scientist. Some of the issues involved have been touched upon briefly in this study (and Table 2.5 above contains a chronology of events leading up to the new arrangements), but this is hardly a substitute for a more comprehensive treatment of the process.⁴

Now that the transition from the Ontario standard to the representative five-province standard has been sketched briefly, it is time to focus on the specific provisions of Canada's new equalization formula.

THE REPRESENTATIVE FIVE-PROVINCE STANDARD

The new provisions are outlined below, interspersed with a few comments. Detailed analysis will be undertaken later.

The new standard

The key feature of the representative five-province standard is, of course, the new *standard*. A province's revenues from each revenue source are raised to the level obtained by applying the national average tax rate to the average per capita base of the five provinces considered to be representative of all provinces. These five are Ontario, Quebec, British Columbia, Saskatchewan, and Manitoba.

Ottawa's stated rationale for this change makes reference to provincial concerns:

Provinces had expressed concern about the initial proposal because, in their view, no single province can be sufficiently representative of the 10 to constitute a standard, and equalization levels could become unstable over time if they depended upon economic developments in only one province. Provinces were also concerned that such a formula would result in an undesirable treatment of natural resource revenues because of the relatively small natural resource base of Ontario. The federal government has consequently agreed to put into the bill provisions for the more broadly-based standard. (MacEachen 1982, 2)

While this statement is cast in terms of why the federal government backed off from the ROS and adopted the RFPS, Ottawa was also able to adopt a more positive approach to the five-province standard:

The standard provinces could consist of British Columbia, Saskatchewan, Ontario, Quebec, and Manitoba. These provinces constitute a type of 'median' of the ten provinces in terms of their fiscal capacity. They exclude Alberta at the top and the four Atlantic provinces at the bottom. The two exclusions would be closely balanced since Alberta is expected to account for 9.20 per cent of total provincial population in the 1981 census, while the four Atlantic provinces would account for 9.22 per cent. (Department of Finance 1982b, 3)

The expression for RFPS equalization for each revenue source is as follows:⁵

$$\begin{array}{lcl} \text{Equalization} & & \\ \text{per} & = & \text{national} \\ \text{capita} & & \text{average} \end{array} \left(\begin{array}{l} \text{the five provinces'} \\ \text{base per} \\ \text{capita} \end{array} - \begin{array}{l} \text{province's own} \\ \text{base} \\ \text{per capita} \end{array} \right) \quad (11.3)$$

Revenue coverage

Under the RFPS, revenue coverage is even more comprehensive than it would have been under the Ontario standard. Specifically, Ottawa acceded to the provincial requests and added a revenue source relating to municipal revenues from the sale of goods and services. Thus, two new revenue sources have been added to those covered under the RNAS—property taxes relating to local use (which means that now *all* property taxes enter the formula) and municipal revenues from the sale of goods and services. In addition, two new categories have been created by splitting up existing revenue categories—potash revenues have been split off from the former mineral resource category and capital taxes have been separated out from business income revenues. Finally, several revenue categories have been reorganized, as it were. The most important of these reorganizations relates to the overall treatment of oil and gas revenues: the new classification assigns them to categories such as conventional old oil revenues, conventional new oil revenues, heavy oil revenues, and mined oil revenues. As I put this chapter into its final form—that is, nearly into the third year of the

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RFPS program—data for these new oil and gas categories are only just being released. Consequently, the equalization estimates in the following chapter will, of necessity, make use of the existing classification of energy royalties.

Minimum level of payments

The RFPS system contains an entirely new provision guaranteeing equalization-receiving provinces a *minimum* level of payments beginning in fiscal year 1983-84. Under the provisions of this 'floor', provinces whose capacity to raise revenue is 70 per cent or less of the national average will never receive less than 95 per cent of their entitlement for the preceding year. For provinces whose capacity to raise revenue is between 70 per cent and 75 per cent of the national average, the floor is 90 per cent. For receiving provinces with fiscal capacity above 75 per cent of the national average, the floor is 85 per cent. Ottawa gives no particular rationale for this new feature other than that it and the transitional guarantees outlined below are 'designed to allay other concerns expressed by the provinces' (MacEachen 1982, 3). Obviously, however, this provision will protect a province from abrupt drops in payments resulting from altered economic circumstances. It may well be that it is also designed to mitigate the very negative equalization implications that can arise from a province's attempts to develop its resource base.

GNP ceiling

The GNP ceiling, proposed under the Ontario standard, will not come into force under the RFPS until fiscal year 1983-84. Moreover, the ceiling is designed to apply not on a year-to-year basis, but rather on a cumulative basis with respect to overall GNP growth from the calendar year ending on 31 December 1982 to the calendar year ending in the fiscal year in question. For example, suppose that the RFPS formula for 1984-85 generates general payments that represent a rate of growth of equalization as measured from fiscal year 1981-82 that exceeds the rate of growth of GNP over the corresponding three-year calendar period. In this case equalization for *all* provinces will be scaled down so as not to exceed the GNP growth rate. Thus, the provision that the ceiling will not be binding in 1982-83 does not

eliminate this fiscal year from calculations for future years relating to this GNP cap.

Ottawa notes that the original proposal (in the 1981 budget) to apply the ceiling to 1982-83 was 'altered' following representations from the provinces. If this provision does become binding, one can expect representations from those recipient provinces whose rates of increase in equalization are less than the rate of increase in total equalization. In other words, they will likely request that the provision be applied on a *province-by-province basis* rather than with respect to *total* equalization flows:

At this juncture, it is appropriate to note that the projections for equalization flows that were available when the RFPS program was first proposed (in early 1982) were way on the high side. This was so because the forecasts did not anticipate the severity of the recent recession. There is little danger that the GNP cap will become binding until well into the 1982-87 arrangements.

Transitional arrangements

Under the so-called 'transitional arrangements' associated with the RFPS, any province entitled to equalization in 1981-82 will be guaranteed a *minimum payment* during a three-year transitional period beginning with fiscal year 1982-83. The details of this transitional provision are as follows. Take the level of equalization in 1981-82 and add to it the annual average change (a dollar figure, not a percentage) over the five years of the 1977-78 to 1981-82 fiscal arrangements. This is the *minimum* level of equalization for 1982-83. For 1983-84 the minimum equals the 1981-82 level plus five-thirds of the value of the annual change over the previous fiscal arrangements. For the last year of the three-year transitional period, the minimum support level will be the 1981-82 payments plus twice the annual average increment over the 1977-82 arrangements.

This provision will be of particular value to Manitoba, the only province whose equalization flows were, on the basis of 1982 data, expected to *fall* as a result of the introduction of the RFPS formula. More recent estimates indicate that Quebec's RFPS formula-generated payments for 1982-83 will also be lower than the province's 1981-82 payments, so Quebec too will receive transitional payments. These payments will also go to any province whose payments rise but

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not by as much as this minimum guaranteed level. The new most recent equalization estimates indicate that all of the four remaining recipient provinces except Newfoundland will also qualify for these transitional payments. In general, this provision exemplifies one of the cardinal principles of policy change in the federal-provincial arena: *no province can be made worse off by the introduction of a new program*. It is a safe bet that if, after the three years, Manitoba's formula-derived flows still show a decline from the previous year, this provision will be extended.

Population-adjustment recovery payments

The new equalization package also authorizes special payments to five provinces to offset certain amounts they owe the federal government for overpayment of equalization for the 1980-81 and 1981-82 fiscal years. The estimated value of these overpayment payments is \$217 million.

As was noted above, the overpayments occurred because the population figures used in calculating interim payments for certain provinces for these years were higher than the newer census-adjusted figures. The benefits involved were originally estimated at \$68 million for Newfoundland, \$8 million for Prince Edward Island, \$49 million for Nova Scotia, \$61 million for New Brunswick, and \$31 million for Manitoba.

In principle, there is *no* justification whatever for these outright gifts to the five provinces. It is possible to explain them in *political* terms, however. I mentioned earlier that Ottawa was able to play off the equalization-recipient provinces against the others by making concessions to the former in the overall fiscal arrangements package. Quite apart from the other concessions in the RFPS, the special payments more than offset the established programs financing losses for 1982-83 for most of the recipient provinces.

CONCLUSION

This chapter has described the transition from the original federal proposal contained in the November 1981 federal budget to the adoption of the version of equalization that will apply for the 1982-83 to 1986-87 period. The following chapter presents in considerable detail the workings of the new RFPS system and in the process

compares it with the Ontario standard on the one hand and a continuation of the RNAS approach on the other.

NOTES

- 1 It should be noted that Ontario went further than this. The province argued that there was a need to revise the nature of the program's funding and in particular to ensure that the energy-rich provinces contributed a larger share of the program's costs. This aspect of the Ontario position was deleted from the federal budget paper.
- 2 These two quotations provide rather strong evidence for the suggestion in Chapter 3 that, on political grounds, it is difficult to conceive of an equalization program under which Ontario would be a beneficiary. If on efficiency grounds Ontario would merit equalization, this strengthens the case for rallying support around the concept of an interprovincial rent-sharing pool, which is rather more neutral in its very phraseology about who ought to be net beneficiaries and contributors.
- 3 More formally,

$$\frac{E_{ij}}{P_i} = t_j \left(\frac{B_{oj}}{P_o} - \frac{B_{ij}}{P_i} \right),$$

where

$$\frac{B_{oj}}{P_o} = \text{the tax base per capita for Ontario (subscript } o \text{ refers to Ontario).}$$

The remaining variables are defined in the appropriate notes to Chapter 4.

- 4 The 1982 Ontario budget contains a strongly worded background paper that would provide valuable material for such a venture. See Ontario (1982).
- 5 In notational terms, this can be written as follows:

$$\frac{E_{ij}}{P_i} = t_j \left(\frac{B_{RFPSj}}{P_{RFPS}} - \frac{B_{ij}}{P_i} \right),$$

where B_{RFPSj}/P_{RFPS} equals the base per capita for revenue source j for the five provinces constituting the new standard.

Appendix

The Saskatchewan and Quebec proposals

THE SASKATCHEWAN PROPOSAL

Saskatchewan tabled an equalization proposal at the 14 December 1981 Federal-Provincial Meeting of Finance Ministers and Provincial Treasurers. The proposal very quickly came to be referred to as RTS-20, although in keeping with the notation followed in this study, I shall call it RNAS-20. This is an accurate shorthand description of the proposal, which argues for the maintenance of the RNAS system, including equalization to the national average level, and the equalization of resource revenues at a 20 per cent rate. The perceptive reader will note that this proposal is fairly close to the one proffered by the Parliamentary Task Force. Presumably Saskatchewan's rationale for only 20 per cent equalization of resource revenues parallels the arguments of the Task Force.

The version of the Saskatchewan proposal presented to the December meeting and also circulated at the First Ministers Conference in February 1982 is very concise. Hence, it is reproduced below *exactly as it was circulated* (Saskatchewan 1981).

BACKGROUND

—In the November 1981 federal Budget, the Government of Canada presented its proposal for a formula to determine fiscal equalization payments for the period commencing on April 1, 1982.

—The federal proposal has two critical features which should not be taken lightly:

Appendix: The Saskatchewan and Quebec proposals

1 The standard of equalization is set with reference to the Province of Ontario; and

2 A cap is placed on equalization payments such that they will not grow more rapidly than GNP.

—Saskatchewan has a number of concerns with these features:

1 A single province should not be used as the standard for a national program;

2 The Ontario standard results in a number of disincentives that could be imposed on resource development in have-not provinces; and

3 The GNP cap may prevent have-not provinces from ever reaching the Ontario standard.

Saskatchewan has constructed a formula that corrects a number of the weaknesses associated with both the current formula and the federal government's proposal.

THE REPRESENTATIVE TAX SYSTEM

— Although the federal proposal retains the use of the representative tax system to measure the fiscal capacity of provinces, little mention has been made of technical adjustments to the system which are required to improve the measurement of the revenue raising ability of a province.

1 The introduction of new revenue sources

New revenue sources should be established in a number of areas including the following:

- alcoholic beverage sales tax
- potash
- NORP (new oil reference price) oil
- non-conventional oil (i.e. tar sands and tertiary oil)
- corporate capital tax
- municipal property tax
- miscellaneous municipal own-source revenues

2 Modifications to current tax bases

Each and every tax base must be examined to determine if modifications are required. For example, senior citizens should no longer be included in the tax base for hospital and

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medical care insurance premiums, the tax base for property taxes should be reviewed in light of new data sources, survey year data should be updated, etc.

3 Modification to revenues to be equalized

The current practice of deducting credits, rebates and reductions from certain revenue sources should be re-examined in terms of allocating these deductions among appropriate revenue sources. In addition, the treatment of tax expenditures compared to direct expenditures fulfilling the same function should be examined.

THE SASKATCHEWAN PROPOSAL

A number of necessary technical adjustments have been made to various revenue sources in the representative tax system under the Saskatchewan proposal:

- 1 The introduction of a potash revenue source;
- 2 Redefining the tax bases for miscellaneous provincial taxes and revenues, school property taxes and municipal property taxes;
- 3 The introduction of miscellaneous municipal own-source revenues (other than property taxes) into the formula; and
- 4 Allocating shared oil export charge revenues between the Crown oil and freehold oil revenue sources.

The Saskatchewan proposal and its basic structure is as follows:

- 1 The representative tax system with a national average standard is used to determine equalization entitlements and resource revenues are equalized at 20 per cent of their value.
- 2 The Saskatchewan formula retains the sensitivity of the representative tax system, ensures that resource revenues continue to play an important role in the formula and removes many of the disincentives associated with resource development in the have-not provinces under the federal proposal.

CONCLUSION

The Saskatchewan formula is a realistic proposal more in keeping with the national character of the equalization formula than the federal government's proposal:

- 1 The overall federal outlays are within an acceptable range;
- 2 The distribution of payments to provinces ensure that they are able to provide a reasonably comparable level of basic services, without resorting to unduly burdensome levels of taxation;
- 3 The formula excludes Ontario from receiving equalization without the use of arbitrary rules; and
- 4 Saskatchewan's position as a province close to the national average is a realistic portrayal of the relative economic position of the Saskatchewan economy.

Remarks

There is no real need to comment in any detail on this proposal because its focus and results should be understandable to anyone who has worked his way through this study to this point. I might note that the figures accompanying Saskatchewan's proposal and reproduced in Table 11A.1 do not correspond with the numbers in the next chapter; the latter are based on newer estimates of bases, revenues, and population.

It is of interest to note that under this proposal Saskatchewan is a *recipient* province, whereas under the Ontario standard or the RFPS it is classified as a 'rich' province. There are essentially two reasons for this. First, equalizing resources at 20 per cent of their value favours Saskatchewan relative to its position *vis-à-vis* the ROS or RFPS formulas. Second, and far more important, the Saskatchewan proposal recommends that the revenues for the shared oil export charge (revenue category 30 in the tables in Chapter 4) be allocated between Crown oil and freehold oil revenue sources. This feature merits further comment. The merging of revenue categories will not alter equalization flows provided that one transfers tax bases as well. However, implicit in the Saskatchewan proposal is a transfer of revenue to existing categories *without* a transfer of an equivalent tax base. The reason why this arises is as follows. The shared oil export

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TABLE 11A.1

1982-83 provincial entitlements under various equalization formulas (\$ millions)

	RNAS formula	Ontario standard	Saskatchewan proposal
Newfoundland	551.0	554.3	622.3
Prince Edward Island	124.0	127.9	130.2
Nova Scotia	626.0	632.8	648.4
New Brunswick	528.7	533.2	560.8
Quebec	2,745.7	2,430.8	2,449.3
Ontario	—	0.0	—209.4
Manitoba	480.1	385.4	394.0
Saskatchewan	—138.9	—770.7	85.2
Alberta	—5,022.6	—9,751.8	—3,760.9
British Columbia	<u>—822.2</u>	<u>—1,528.5</u>	<u>—919.9</u>
Recipient provinces	5,055.5	4,664.4	4,890.1

SOURCE: Saskatchewan (1981).

charge is a new category of equalization that was introduced in 1981. Its base is the *actual revenues* transferred back to the provinces. As was noted in Chapter 4, Saskatchewan has 70 per cent of this tax base. The Saskatchewan proposal is to allocate these revenues to *existing* categories in the proportion to which they arise from either freehold or Crown oil revenue sources. There is no attempt to adjust the tax bases for freehold or Crown oil because they *already incorporate all production from these sources* (including that portion that eventually ends up in export markets). It seems clear to me that the Saskatchewan position is correct in principle, since production of this exported oil is already recorded in other categories. Presumably the federal side of the story is that the potential rents available from a barrel of oil sold in the domestic market are considerably less than the rents from a barrel sold in the U.S. market. Hence, the separate designation is warranted.

THE QUEBEC PROPOSAL

The Quebec proposal is far more innovative and far more detailed than the Saskatchewan proposal. Moreover, the original document runs to nearly fifty pages so it cannot be reproduced in its entirety (see Quebec 1982). What follows is my interpretation of the proposal.

The starting point of the Quebec proposal is a segregation of the existing revenue sources into *three* categories, R1, R2, and R3. These categories are as follows:

R1 - Revenues derived from taxation:

- 1 Personal income tax
- 2 Hospital insurance premiums
- 3 Death duties and gift taxes
- 4 Corporation income tax
- 5 Corporation capital tax
- 6 Taxes on insurance premiums
- 7 Payroll taxes
- 8 General sales taxes
- 9 Taxes on tobacco
- 10 Taxes on gasoline
- 11 Taxes on diesel fuel
- 12 Revenues from the sale of spirits
- 13 Revenues from the sale of wine
- 14 Revenues from the sale of beer

R2 - Revenues derived from fees charged for goods and public services, from property taxes, and from miscellaneous sources:

- 1 Duties and licences for motor vehicles
- 2 Taxes on 'pari mutuel'
- 3 Lottery taxes
- 4 Other duties and licences or miscellaneous taxes
- 5 Sales of goods and services
- 6 School property taxes
- 7 Property taxes and other municipal revenues

R3 - Revenues derived from natural resources:

- 1 Forestry resources

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- 2 Mining resources
- 3 Hydraulic resources
- 4 Oil resources
- 5 Gas resources
- 6 Sale of Crown lands
- 7 Remittances from provincially owned corporations

These categories include *all* of the tax bases included in the RFPS approach, but the bases are classified differently. For example, oil and gas revenues comprise only two categories in the Quebec scheme. On the other hand, the second tax base from Chapter 4 (business income revenue) is broken down into two categories—corporation income tax, which is category 4 of R1, and remittances from provincially owned corporations, which is category 7 of R3.

Quebec's rationale for this threefold breakdown of tax bases is as follows. R1 includes all of those tax sources for which the tax bases are obvious and easily identifiable. The R3 categories relate essentially to resource revenues. The revenue sources in R2 do not, in Quebec's view, have an easily identifiable tax base. Under the RNAS equalization formula, the definition of the tax base for some of these sources (e.g., lottery taxes) was personal income—clearly a much less precise definition than those applicable to the bases in R1 (e.g., for revenues from sales of beer the base is the volume of beer sold). For another source, property taxes, a definable tax base does exist in principle. In practice, however, property evaluation procedures vary so much from province to province that Quebec can reasonably argue that property taxes belong in R2. One can quibble about where to draw the line, but in general the Quebec approach to classifying revenue sources is rather persuasive.

The treatment of R1 sources

For the R1 revenues, the equalization program would operate *exactly as it did under the RNAS version*. One would calculate fiscal excesses and deficiencies and these would be multiplied by the total revenues of the provinces. In the notation of the Quebec proposal:

$$ER1_i = \sum_{j=1}^{14} D_{ij} R1_j, \quad (11A.1)$$

Appendix: The Saskatchewan and Quebec proposals

where

$$\begin{aligned} ER1_i &= \text{equalization entitlements for } R1 \text{ sources for province } i, \\ D_{ij} &= \text{fiscal deficiency for province } i \text{ for revenue source } j, \text{ and} \\ R1_j &= \text{total revenues to be equalized for revenue source } j. \end{aligned}$$

To repeat, for these 14 revenue sources the Quebec proposal mirrors the old RNAS approach, which equalizes revenues to the national-average level. The D_{ij} s are the difference between population shares and tax-base shares as in the RNAS formula.

The treatment of R2 sources

For the revenue categories in R2 the Quebec proposal suggests the following approach:

- treat the revenues collected from these sources as a *single aggregate*;
- calculate fiscal deficiencies for each province in terms of the *average fiscal deficiency for the R1 sources*.

In notational terms, this can be expressed as:

$$ER2_i = \bar{D}_i R2 \tag{11A.2}$$

where

$$\begin{aligned} ER2_i &= \text{equalization entitlements from the R2 category for province } i, \\ \bar{D}_i &= \text{the } \textit{average} \text{ fiscal deficiency for the R1 categories for province } i, \text{ and} \\ R2 &= \text{total provincial revenues from the R2 revenue sources.} \end{aligned}$$

The treatment of R3 sources

Here the Quebec proposal gets very complicated. The first step in the calculation procedure is to divide total natural resource revenues into two exhaustive categories, which I shall call *basic* natural resource revenues and *surplus* natural resource revenues. To calculate basic natural resource revenues for each province one takes the *smaller* of the following two amounts:

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- actual natural resource revenues or
- the province's population share of total (all-province) natural resource revenues.

In the calculations in the Quebec proposal, basic natural resource revenues are identical with the actual revenues for seven of the provinces (all except Saskatchewan, Alberta, and British Columbia) since these revenues represent an amount that is *smaller* than these provinces' population shares of total revenues. For the remaining three provinces, basic revenues are set equal to these provinces' population shares of total resource revenues.

Surplus revenues are then calculated as any resource revenues above basic revenues. Obviously, there are only surplus revenues in the three provinces whose basic revenues are restricted by the population-share calculation. Following these procedures for 1981-82, the resource revenues of roughly \$7 billion break down as follows: about \$2 billion go to basic revenues and \$5 billion to surplus revenues.

Equalization arising from natural resources is the sum of three components:

$$ER3 = \frac{\text{equalization from basic natural resource revenues}}{\text{equalization from surplus natural resource revenues}} - \frac{\text{surplus natural resource revenues}}{\text{surplus natural resource revenues}} \quad (11A.3)$$

or

$$ER3 = EBNRR + ESNRR - SNRR.$$

EBNRR

The equalization formula for *basic* natural resource revenues (BNRR) is:

$$EBNRR_i = \left(\begin{array}{cc} \text{population} & \text{province } i\text{'s} \\ \text{share of} & \text{share of} \\ \text{province } i & \text{total } BNRR \end{array} \right) BNRR. \quad (11A.4)$$

Appendix: The Saskatchewan and Quebec proposals

In other words, each province's revenues is brought up to its population share of basic natural resource revenues. (Note that this is *not* the same as bringing a province's revenues up to its population share of *total* resource revenues, since basic resource revenues amount to only \$2 billion of the \$7 billion total.)

ESNRR

The equalization formula for the *surplus* natural resource revenues (SNRR)—which, as noted above, make up the bulk of total resource revenues—is the same as the formula for R2 revenues, namely:

$$ESNRR_i = \bar{D}_i \cdot SNRR, \quad (11A.5)$$

where $\bar{D}_i$ is the *average* fiscal deficiency for province *i* over the R1 categories of equalization.

SNRR

The final component of ER3 is SNRR itself. Quebec proposes that it be subtracted from the sum of EBNRR and ESNRR. The purpose of this is to ensure that provinces with substantial resource revenues do not end up at the receiving end of equalization. For example, it is quite possible for a resource-rich province to have an overall fiscal deficiency for the R1 categories. Indeed, Saskatchewan falls in this category. Thus it will receive positive equalization from ESNRR, where the bulk of the resource revenues are in fact equalized. By subtracting the surplus, the formula ensures that a province can get equalization only if the sum of its entitlements from the rest of the formula exceeds its resource surplus. As a matter of interest, this provision is quite similar to the one in the 1964-65 equalization program whereby provinces with resource revenues greater than the national average level could receive equalization only if their equalization entitlements exceeded 50 per cent of their excess resource revenues (see Table 2.3 above and the surrounding text).

Comments on R3

First of all, note that the tax base for R3 is *revenues collected* and not any physical definition of output. Quebec's reasoning is as follows:

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The level of activity in the primary sector of a province is not necessarily representative of the fiscal capacity of a government to raise revenues from its natural resources. Rather, it is the economic rent associated with natural resources that represents the real fiscal capacity related to this kind of activity. How can fiscal capacity be compared between a potash mine in Saskatchewan and a copper mine in Quebec, between oil gushing from a traditional type well in Alberta and oil that has yet to flow from off-shore rigs in Newfoundland, between a kilowatt-hour generated by the Beauharnois hydroelectric dam and one from the James Bay dam? Furthermore, following an agreement allowing the federal government to obtain a major part of natural resource rents, such as the one concluded between Ottawa and Edmonton, the fiscal capacity of oil-producing provinces is no longer a function of total rent, but of what remains of it.

As it is impossible to measure the economic rent associated with natural resources for each of the provinces, the *best measuring device available for fiscal capacity related to natural resources is found in the revenues that are actually collected from them.* (Quebec 1982, 15-16; emphasis added)

This is an important suggestion, since putting it into practice would ensure that in developing its resources no province would lose more in equalization than it collected in revenues from the resource development. In other words, the dramatic relationship between equalization and mineral resource development illustrated in Table 11.1 of this chapter could not arise if tax bases were assigned in terms of revenues collected. One way to describe the Quebec proposal is to say that it assumes that the provinces are rent maximizers. They will extract whatever revenues they can from a resource and, therefore, these rents or revenues ought to be used as the tax base. However, this assumption appears to be valid only if the resource in question is privately owned. When it comes to hydro facilities, for example, it may be rational for provinces to transfer rents to consumers via low prices. This is a defect of the Quebec approach.

Second, it is clear that the Quebec proposal allows overall resource revenues to enter the formula in such a manner that the cost of equalizing them is *much less* than it was under the old RNAS approach. This occurs because the fiscal deficiencies used to equalize the *surplus* natural resource revenues (which represent the largest

component) are much smaller than the deficiencies that were used in the RNAS formula. As was made clear in Chapter 4, for most provinces the fiscal deficiency under the RNAS was identical with the population share. Under the Quebec proposal the fiscal deficiencies for equalizing SNRR are set to $\bar{D}_i$, *the average fiscal deficiency for the province for the range of R1 revenues*. Quebec's rationale for this approach is also convincing:

inasmuch as a province benefits from a surplus of revenues resulting from an excess natural resource fiscal capacity, the existence of this surplus is expressed to a large degree by an *equivalent reduction of other revenues that would be equalized*, whence the necessity of equalizing such revenues according to the average fiscal capacity related to such tax revenues. (Ibid., 16; emphasis added)

In other words, the argument is that because of these surpluses energy-rich provinces are likely to reduce their tax revenues from other sources (e.g., Alberta has no sales tax and the lowest income taxes). This reduces the level of equalization from more traditional sources (either R1 or R2). Thus, if one wants to equalize resource revenues one should not do so in terms of the immense fiscal capacity differentials associated with resource revenues. Rather, it is more appropriate to equalize them in terms of the *average deficiencies for other revenue sources*, because if the surpluses did not exist it is from *these* sources that substitute revenues would have to be raised.

However, the Quebec proposal does resort to the use of resource-related fiscal deficiencies for equalizing the *basic* level of resource revenues. But even here, the fiscal deficiencies across provinces are not as large as they were in the RNAS formula. This is because for all provinces except the three westernmost, total resource revenues fall into the basic category, and in calculating a percentage share of basic natural resource revenues the denominator is BNRR and not total resource revenues.

Finally, the deduction of surplus revenues in order to calculate equalization entitlements is designed to ensure that no resource-rich province ends up with equalization. The Quebec rationale is clear:

Since a province enjoying a surplus of revenues resulting from an excess natural resource fiscal capacity can insure a

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satisfactory level of public services without depending in order to do so upon equalization and without resorting as much to heavier taxation, such surplus thus reduces...equalization payments that would otherwise be payable. Actually, this...provision (for the treatment of the Resource Surplus) would presently be inoperative for all the provinces since equalization entitlements computed before the application of the provision are already negative for each province thus concerned. (Ibid.)

Evaluation

Table 11A.2 (adapted from the Quebec paper) compares the Quebec formula with the RNAS approach and with the Ontario standard. The table shows the amounts of equalization that would arise under each of these approaches in the three categories, R1, R2, and R3. The RFPS is not included in the table because it did not exist when Quebec published its proposal.

Even though the flows are classified into R1, R2, and R3 categories for all three approaches, a comparison is not very easy. This is so because the coverage differs between approaches. For example, unlike the RNAS approach, the Ontario standard includes property taxes for municipal purposes and 100 per cent, not 50 per cent, of resource revenues. The Quebec proposal also adds municipal revenues from nontax sources (which, as was noted earlier, are now included in the RFPS). Despite this variation in coverage, the results in the table are quite revealing.

First, note that the Quebec proposal results in a higher level of equalization payments than arises under either the RNAS approach or the Ontario standard. However, if the RNAS approach were to adopt the same resource coverage as the Quebec proposal, the RNAS version would generate much higher payments. To see this, all one has to note is that ER3 for RNAS is just over \$1 billion. If 100 per cent rather than 50 per cent of natural resource revenues entered the formula (as is the case under the Quebec system), this amount would become \$2 billion and total payments would exceed those under the Quebec proposal. And this does not even take into account the increase in RNAS payments that would arise from the inclusion of

TABLE 11A.2

Equalization entitlements for the categories of revenues R1, R2, and R3 under the different formulae, by province, 1981-82 (\$ millions)

Province	RNAS				Ontario standard				Quebec proposal			
	ER1	ER2	ER3	Total	ER1	ER2	ER3	Total	ER1	ER2	ER3	Total
Newfoundland	352.0	77.5	31.0	460.5	389.1	157.4	-54.4	492.1	349.2	178.3	74.2	601.7
Prince Edward Island	75.1	14.4	16.7	106.1	82.9	30.1	3.6	116.6	74.5	38.1	20.8	133.4
Nova Scotia	339.5	77.0	109.1	525.6	393.8	172.0	14.1	579.9	346.1	176.7	115.1	637.9
New Brunswick	295.6	68.8	77.1	441.5	340.6	150.3	-6.7	484.2	275.9	140.9	80.4	497.3
Quebec	1,138.4	248.7	732.3	2,119.5	1,539.9	634.2	21.1	2,195.2	1,195.2	610.4	576.0	2,381.6
Ontario	-546.2	-120.2	1,009.2	342.8	-	-	-	-	-623.5	-318.4	464.7	-477.2
Manitoba	275.9	7.5	107.7	391.1	341.2	45.1	-21.7	364.7	288.7	147.4	82.1	518.3
Saskatchewan	166.9	-12.7	-63.0	91.3	229.0	14.8	-397.4	-153.6	186.9	96.4	-552.0	-269.7
Alberta	-1,397.4	-288.1	-1,978.8	-3,664.4	-1,260.6	-389.5	-5,127.8	-6,778.0	-1,382.0	-705.8	-5,006.7	-7,094.5
British Columbia	-699.9	-72.9	-41.4	-814.2	-528.2	-39.4	-625.6	-1,193.3	-711.0	-363.1	-745.5	-1,819.5
Total recipient provinces	2,643.5	481.3	1,011.0	4,135.7	3,087.5	1,189.0	-43.8	4,232.8	2,529.7	1,291.9	948.6	4,770.2

ER1: Entitlements as regards tax revenues.

ER2: Entitlements as regards revenues derived from fees charged for goods and public services, property taxes, and miscellaneous sources.

ER3: Entitlements as regards natural resource revenues.

SOURCE: Quebec (1982, Table 3.2).

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the new municipal revenue categories, which total more than \$11 billion. As the Quebec document notes:

By proceeding in such a manner [i.e., via the Quebec proposal] the *aggregate* of provincial and local government revenues are equalized without...causing prohibitive costs for the federal government while ensuring residents of the provinces receiving equalization payments an equitable treatment and while preserving for residents of provinces rich in natural resources the net additional advantage that derives from the recognition of provinces' rights of ownership over their natural resources. (Ibid.)

Thus one advantage that the Quebec proposal has over the RNAS formula is that it can go to a more comprehensive coverage without much increase in cost. The difference lies in the treatment of resource revenues. With 100 per cent coverage, the equalization payments arising from ER3 under the Quebec proposal are *less* than the value of ER3 under RNAS, even though the RNAS incorporates only 50 per cent coverage.

A second observation relates to the comparison between the Ontario standard and the Quebec proposal, particularly with respect to ER3. Resource revenues generate just under a billion dollars in equalization payments in the Quebec formula: they *reduce* equalization payments by \$44 million under the Ontario standard.

Third, the Quebec proposal generates negative entitlements for Ontario as well as for the three western provinces, so it has the same set of recipient provinces as the ROS and RFPS approaches.

Fourth, there are a few features of the Quebec proposal that might be viewed as problematical. For example, in equalizing BNRR there is an incentive for a province to reduce its rent to zero. It would still obtain its population share of BNRR (which would, however, fall by the amount of the decrease in the province's rent collection). This is one type of problem that can arise when *actual* (as distinct from standardized) revenues or rents collected are used as the base. There is also a potential confiscatory tax situation that can arise as a result of the treatment of the surplus resource revenues (SNRR). They are to be subtracted from equalization otherwise payable. As Quebec points out, this is not really a problem since the provinces that have surplus resource revenues also tend to be 'have' provinces for R1 and R2.

However, suppose that Newfoundland strikes it rich in the offshore oil patch. If it ends up with surplus resource revenues, these will have to be deducted dollar-for-dollar from its R1 and R2 equalization payments. (There is some offset, since under ESNRR above, equation 11A.5, it could keep its average fiscal deficiency, $\bar{D}_i$.)

Overall, however, the Quebec proposal is very innovative and quite persuasive. It addresses many of the issues that were problematical under the old RNAS approach and handles them in at least as satisfactory a way as does the Ontario standard. If one felt that the overall level of equalization were somewhat too high under the Quebec scheme, one appropriate modification would be to scale down the amount of new municipal revenues that entered the formula.

Finally, *it is interesting to note that the Quebec formula is in fact closely related to a macro formula.* There is a single estimate for fiscal deficiency or excess that applies to the R2 revenue categories and to equalizing the resource surplus. Moreover, applying this $\bar{D}_i$ to the R1 categories as well would not make a great deal of difference to overall flows, since $\bar{D}_i$ is derived from deficiencies relating to these very categories.

The major difference between a macro formula and the Quebec proposal is the latter's deduction of the resource surplus in calculating equalization entitlements for the resource-rich provinces. This is probably an improvement on a macro formula because it makes it more difficult for resource-rich provinces to become recipients of equalization payments. As was noted above, however, the Quebec proposal may incorporate close to a dollar-for-dollar offset for a poor province that is developing its resources. If there were a serious attempt afoot to implement the Quebec proposal, some amelioration of this tax-back rate might be appropriate.

12

RFPS: an analysis

The purpose of this chapter is twofold: to detail the mechanics of the representative five-province standard and to compare and contrast them with the operations of the ROS and the RNAS. While some evaluation of the RFPS equalization program will of necessity find its way into the analysis, a full evaluation is the subject of the following chapter.

BACKGROUND CALCULATIONS FOR THE RFPS: 1982-83

The RFPS formula

As was noted in the previous chapter, the new equalization formula can be expressed, for each of the revenue sources, in the following notation:

$$\frac{E_i}{P_i} = t_j \left[\left(\frac{B}{P} \right)_{RFPS} - \left(\frac{B}{P} \right)_i \right], \quad (12.1)$$

where

$$\frac{E_i}{P_i} = \text{per capita equalization for province } i,$$

$$t_j = \text{national average tax rate for revenue source } j,$$

$\left(\frac{B}{P}\right)_{RFPS}$ = the RFPS per capita tax base for revenue source j , and

$\left(\frac{B}{P}\right)_i$ = province i 's tax base for revenue source j .

In order to make the formula conform to the tables that follow, it is convenient to multiply through to remove the bracketed term:

$$\frac{E_i}{P_i} = t_j \left(\frac{B}{P}\right)_{RFPS} - t_j \left(\frac{B}{P}\right)_i, \quad (12.2)$$

where

$t_j \left(\frac{B}{P}\right)_{RFPS}$ = per capita revenues at national average tax rates for the representative five-province standard and

$t_j \left(\frac{B}{P}\right)_i$ = per capita revenues at national average tax rates for province i .

In other words, per capita equalization is such as to bring a province's per capita own yield at national average tax rates up to the per capita yield at national average rates for the five provinces that make up the RFPS. With this as backdrop, we are ready to proceed to the various tables relating to equalization flows under RFPS for 1982-83.

A note on the data

The data for 1982-83 that follow are based on Department of Finance estimates *as of March 1982*. While more recent data are available, there are two advantages to using this particular data set. First, these were the relevant figures available when the federal government was choosing among the various equalization options. In addition, the March 1982 estimates facilitate comparison across the different approaches to equalization.

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On the other hand, there are also at least two important problems associated with the use of these data. First, the estimates for total revenues for many tax sources, and therefore the resulting equalization flows, are on the high side. The March 1982 projections did not foresee the severity of the recent recession. In this regard, more recent estimates would be more appropriate. The second problem, more disconcerting than the first, affects *all* estimates of equalization that were available when this chapter was written. As was noted in the previous chapter, the new system reclassifies the energy revenues into categories such as conventional new oil, conventional old oil, heavy oil, and 'mined' oil. The 'regulations' pursuant to the Fiscal Arrangements Act passed Parliament only in late 1983. These regulations define the new tax bases. Equalization estimates based on these *new* or *reclassified* revenue sources have, as a result, only recently become available. One approach to this problem would have been to delay publication of this study until the final estimates for fiscal year 1982-83 were published. I have opted for a different approach—to proceed on the basis of the March 1982 estimates and to relegate to an appendix to this chapter the most up-to-date estimates available as this study goes to press.

In this regard, it is useful to reproduce a notice that appeared in the Department of Finance's July 1982 equalization estimates (and that presumably also appeared in even later versions):

The listing of the 34 revenue sources which appears in this book does not conform exactly to the list of 33 revenue sources which will be contained in the Federal-Provincial Fiscal Arrangements and Established Programs Financing Act, 1977, as amended by Bill C-97 (1982).

The differences relate to local government revenues and to oil and natural gas revenues.

In the case of local government revenues two new categories of revenue would be added—municipal revenues from taxation and local government revenues from sales of goods and services. In each case these revenues are closely similar to provincial revenues that are already equalized and they are therefore included in the Bill with existing revenue sources. However, they are shown separately in the present tables for purposes of information so that users may be aware of the effect of bringing new categories of revenue into the formula.

If they were grouped with the comparable provincial revenues this information would not be available.

In the case of oil and natural gas revenues, the Bill provides for new revenue sources for conventional new oil, conventional old oil, heavy oil, mined oil, domestically sold natural gas and exported natural gas. Revenue and tax base data are not presently available to make current estimates or projections of equalization for these revenue sources. (Department of Finance 1982c)

All is not lost, however. First of all, the reclassification of the energy revenues, *per se*, will make very little difference to the equalization flows, since the recipient provinces generally have a zero tax base for these categories. Second, the old classification does have considerable merit for present purposes, since it allows one to trace rather accurately the implications of the transition from RNAS to ROS to RFPS.

Population shares and base shares

Table 12.1 presents data on population shares and tax base shares for the 34 tax sources. The final column of the table presents data on the dollar value of revenues that enter the equalization formula. Two of the 34 categories represent new tax sources—municipal-tax revenues (31) and local government sales of goods and services (34). Together, they add more than \$11 billion in provincial revenues to the formula. The other departure from the RNAS classification relates to the two revenue sources that have been split off from previous categories—potash revenues (32) from the former category 22 and capital taxes (33) from the former category 2. Of passing interest is the fact that Saskatchewan has 100 per cent of the tax base for potash revenues. (This will change in the future, since New Brunswick too has become a producer.) Since Saskatchewan is one of the five provinces in the new standard, potash revenues will generate equalization. But if, say, Nova Scotia had 100 per cent of this or some other revenue base, no equalization would result, since Nova Scotia is not part of the five-province standard. The implications of who is in and who is out of the standard will be dealt with in more detail later in the chapter.

TABLE 12.1

Background data for the RFPS equalization program, 1982-83

										Revenues to be equalized (\$ millions)	
										ALTA	BC
A.	Population share (%)	2.34	0.50	3.49	2.86	26.36	35.45	4.20	4.00	9.38	11.44
B.	Tax base share (%)										
1	Personal income taxes	1.27	0.26	2.36	1.75	23.22	38.24	3.40	3.65	12.19	13.27
2	Business income revenues	1.01	0.22	2.12	1.83	20.41	36.31	3.18	2.95	19.50	12.48
3	General sales taxes	1.61	0.30	2.75	2.24	21.75	35.05	3.30	4.07	15.03	13.88
4	Tobacco taxes	1.84	0.38	3.26	3.35	30.67	32.92	3.47	2.90	8.20	12.02
5	Gasoline taxes	1.71	0.49	3.27	3.07	23.58	36.01	3.83	4.25	12.09	11.70
6	Diesel fuel taxes	1.48	0.18	2.46	4.18	20.60	36.09	4.08	4.89	13.75	12.28
7	Noncommercial vehicle licences	1.42	0.46	3.56	2.46	24.98	35.91	4.42	3.82	11.37	11.61
8	Commercial vehicle licences	1.88	0.35	2.84	2.77	17.60	28.60	5.23	6.35	20.72	13.86
9	Revenues from sale of spirits	1.87	0.59	3.64	2.27	17.35	37.34	5.06	4.19	12.38	15.21
10	Revenues from sale of wine	0.73	0.24	2.14	1.34	28.84	34.71	3.15	2.15	9.65	17.04
11	Revenues from sale of beer	2.53	0.44	3.08	2.61	28.59	36.04	3.83	3.31	8.30	11.26
12	Hospital/medical ins. premiums	2.10	0.47	3.54	2.79	24.83	37.80	3.92	3.56	9.23	11.76
13	Succession duties/gift taxes	0.69	0.19	1.92	1.15	20.53	41.92	2.73	3.48	14.14	13.25
14	Race track taxes	0.08	0.32	1.21	0.78	21.69	49.00	3.09	0.93	11.95	10.96
15	Forestry revenues	1.74	0.00	0.36	3.26	13.07	12.22	0.71	1.17	1.78	65.70
16	Crown oil revenues	0.00	0.00	0.00	0.00	0.00	0.00	0.16	8.33	88.57	2.93
17	Freehold oil revenues	0.00	0.00	0.00	0.00	0.00	0.65	3.01	11.40	84.02	0.92
18	Crown gas revenues	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.76	86.28	11.96
19	Freehold gas revenues	0.00	0.00	0.00	0.00	0.00	2.49	0.00	0.68	96.40	0.42
20	Sales of Crown leases	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.08	80.81	13.10
21	Other oil and gas revenues	0.00	0.00	0.00	0.00	0.00	0.00	0.09	5.78	86.70	7.42
22	Mineral revenues	8.74	0.00	1.91	3.28	16.18	36.92	5.97	4.14	3.69	19.17
23	Water power rentals	17.91	0.00	0.36	1.07	38.96	16.08	7.62	1.02	0.68	16.30
24	Insurance premium taxes	1.16	0.32	2.51	2.32	27.71	36.82	3.46	3.53	10.91	11.25
25	Payroll taxes	1.37	0.29	2.72	1.99	24.28	39.79	3.78	3.13	10.07	12.57
26	Property/school taxes	1.54	0.34	2.56	2.08	23.15	37.41	4.12	4.12	12.29	12.39
27	Lottery revenues	1.44	0.37	2.88	2.12	24.21	38.74	4.05	3.91	9.75	12.53
28	Miscellaneous provincial taxes	1.35	0.30	2.34	1.94	22.57	36.66	3.70	4.35	14.41	12.39
29	Shared tax on undist. inc.	0.10	0.00	0.17	0.00	74.14	15.94	0.51	0.42	6.61	2.95
30	Shared oil export charge	0.00	0.00	0.00	0.00	0.00	0.00	0.00	70.00	30.00	0.00
31	Municipal-tax revenues	1.64	0.34	2.56	2.08	23.15	37.41	4.11	4.12	12.29	12.39
32	Potash revenues	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00
33	Capital tax	1.24	0.18	1.89	1.68	18.41	35.70	3.53	3.65	20.30	13.43
34	Local government sales of goods and services	1.35	0.30	2.34	1.94	22.57	36.66	3.70	4.35	14.41	12.39
										TOTAL	70,347.7

SOURCE: Department of Finance (1982a, 11-13).

Provincial per capita yields at national average tax rates

The first step in calculating equalization entitlements is to generate the per capita yields at national average tax rates for all provinces and all revenue sources. These figures, which appear in Table 12.2, correspond to the last term in equation 12.2.

In order to calculate the per capita entitlements, one needs the per capita yield at national average tax rates for the five provinces that make up the RFPS (British Columbia, Saskatchewan, Manitoba, Ontario, and Quebec). These figures appear as the second-last column of Table 12.2. Consider the first revenue category, personal income taxes. Provincial per capita yields vary from \$367.06 in Prince Edward Island to \$930.94 in Alberta. The RFPS yield is \$722.65. This is not the simple average of the yields in the five provinces included in the standard. Rather it is a *population-weighted average*. In effect, this means that one sums the dollar value of the yields at national average rates for these five provinces and then divides this sum by the sum of the five provinces' populations.

As the formula indicates, per capita equalization payments are now easy to calculate. For each tax source, they are simply the difference between the province's own figure and the RFPS figure. Once again, it is instructive to focus on personal income taxes. New Brunswick's yield is \$438.15 and the RFPS is \$722.65. Thus New Brunswick receives a positive equalization entitlement of \$284.50 for personal income taxes. These entitlements appear in Table 12.3 below.

It is interesting to note that one can also calculate entitlements arising under an Ontario standard from Table 12.2. The *Ontario standard is simply the Ontario column of figures*. For personal income taxes, the Ontario yield is about \$50 higher than the RFPS. Hence, under the ROS, New Brunswick would receive per capita entitlements for personal income taxes of \$334.28.

The last column of this table contains figures for the 'full' national average standard, that is, 100 per cent of revenues from all 34 sources evaluated at their national average per capita yields. This information will be used later in the chapter.

Per capita equalization entitlements

Table 12.3 presents the per capita equalization entitlements. They are derived from Table 12.2 in the manner just described. Overall

TABLE 12.2
Provincial per capita yields at national average tax rates, 1982-83 (dollars)

Revenue source	Nfld	PEI	NS	NB	QUE	ONT	MAN	SASK	ALTA	BC	Representative five-province standard (RFPs)	Full national average standard ^a
1 Personal income taxes	388.08	367.06	484.35	438.15	630.77	772.43	579.90	637.35	930.94	862.20	722.65	716.13
2 Business income revenues	75.58	76.99	105.51	111.38	134.88	178.43	132.01	129.15	362.11	190.09	161.17	174.20
3 General sales taxes	233.50	205.38	267.03	266.18	279.54	334.86	266.53	346.17	542.89	410.85	324.66	338.72
4 Tobacco taxes	33.28	31.85	39.45	49.62	49.21	39.27	34.95	30.72	41.49	44.43	42.57	42.29
5 Gasoline taxes	82.48	108.93	105.37	121.28	100.85	114.50	102.89	120.13	145.27	115.25	109.56	112.71
6 Diesel fuel taxes	16.12	9.28	17.88	37.19	19.86	25.88	24.69	31.20	37.26	27.29	24.33	25.42
7 Noncommercial vehicle licences	21.65	32.62	36.28	30.62	33.74	36.07	37.48	34.13	43.18	36.14	35.31	35.61
8 Commercial vehicle licences	19.24	16.67	18.10	23.19	15.97	19.29	29.80	38.08	52.82	28.96	21.03	23.91
9 Revenues from sale of spirits	40.18	55.64	49.86	37.88	31.34	50.16	57.38	50.08	62.83	63.33	46.29	47.62
10 Revenues from sale of wine	3.68	5.65	7.22	5.52	12.90	11.64	8.89	6.36	12.13	17.56	12.43	11.78
11 Revenues from sale of beer	20.78	16.75	16.87	17.47	20.78	19.48	17.50	15.90	16.96	18.86	19.53	19.15
12 Hospital/medical ins. premiums	59.54	62.46	67.28	64.80	62.47	70.74	62.02	59.21	65.29	68.22	66.71	66.34
13 Succession duties/gift taxes	0.58	0.75	1.01	0.79	1.53	2.33	1.28	1.71	2.96	2.28	1.98	1.97
14 Race track taxes	0.18	3.36	1.85	1.44	4.38	7.36	3.92	1.24	6.78	5.10	5.61	5.32
15 Forestry revenues	8.73	0.00	1.20	13.40	5.83	4.05	1.98	3.46	2.23	67.52	13.41	11.76
16 Crown oil revenues	0.00	0.00	0.00	0.03	0.00	0.00	6.90	367.98	1,663.50	45.19	24.72	176.16
17 Freehold oil revenues	0.00	0.00	0.00	0.00	0.00	0.17	6.81	27.17	85.07	0.76	1.86	9.50
18 Crown gas revenues	0.00	0.00	0.00	0.16	0.00	0.00	0.00	53.98	1,126.58	128.01	20.62	122.47
19 Freehold gas revenues	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.60	35.89	0.13	0.15	3.49
20 Sales of Crown leases	0.00	0.00	0.00	0.00	0.00	0.00	0.00	66.63	376.17	50.00	10.29	43.66
21 Other oil and gas revenues	0.00	0.00	0.00	0.00	0.00	0.00	0.11	7.05	44.98	3.16	0.79	4.87
22 Mineral revenues	57.92	0.00	8.45	17.78	9.50	15.12	22.03	16.09	6.08	25.95	15.66	15.48
23 Water power rentals	36.63	0.00	0.49	1.80	7.06	2.17	8.67	1.22	0.35	6.81	4.69	4.78
24 Insurance premium taxes	6.38	8.27	9.20	10.42	13.47	13.31	10.65	11.35	14.90	12.60	13.02	12.81
25 Payroll taxes	35.31	34.81	46.73	41.93	66.32	67.41	54.09	47.13	64.51	66.01	61.62	60.06
26 Property/school taxes	121.61	125.57	134.98	134.35	161.71	194.29	180.06	190.24	241.16	199.44	183.53	184.10
27 Lottery revenues	8.60	10.16	11.47	10.32	12.80	16.22	13.44	13.67	14.48	15.26	14.28	13.93
28 Miscellaneous provincial taxes	47.36	48.20	54.82	55.65	70.03	84.58	72.07	89.31	125.67	88.57	80.02	81.80
29 Shared tax on undist. inc.	0.00	0.00	0.00	0.00	0.15	0.02	0.01	0.01	0.04	0.01	0.06	0.05
30 Shared oil export charge	0.00	0.00	0.00	0.00	0.00	0.00	0.00	136.33	24.83	0.00	6.67	7.76
31 Municipal-tax revenues	216.65	223.70	240.48	239.35	288.09	346.13	320.78	338.91	429.64	355.30	326.97	327.98
32 Potash revenues	0.00	0.00	0.00	0.00	0.00	0.00	0.00	179.38	0.00	0.00	5.78	7.15
33 Capital tax	17.04	11.19	17.35	18.82	22.39	32.28	26.92	29.35	69.37	37.62	29.41	32.05
34 Local government sales of goods and services	77.00	78.36	89.12	90.31	113.85	137.51	117.17	145.19	204.32	144.00	130.09	132.95
TOTAL	1,628.14	1,533.64	1,832.22	1,839.73	2,158.45	2,595.84	2,200.79	3,226.46	6,852.67	3,136.89	2,540.77	2,874.07

^a This is not the RNAS, but rather a 'full' national average standard—that is, with 100% of revenue for all sources evaluated at their national average per capita yields.
SOURCE: Department of Finance (1982a, 15).

TABLE 12.3

Per capita equalization entitlements under the RFPS formula, 1982-83 (dollars)

Revenue source	NFLD	PEI	NS	NB	QUE	ONT	MAN	SASK	ALTA	BC
1 Personal income taxes	334.56	355.59	238.30	284.50	91.88	-49.78	142.75	85.29	-208.30	-139.56
2 Business income revenues	85.58	84.18	55.66	49.79	26.29	-17.27	29.16	32.01	-200.95	-28.92
3 General sales taxes	91.16	119.28	57.63	58.48	45.12	-10.20	58.13	-21.51	-218.23	-86.19
4 Tobacco taxes	9.29	10.73	3.12	-7.05	-6.64	3.30	7.63	11.85	1.08	-1.86
5 Gasoline taxes	27.38	0.94	4.49	-11.42	9.01	-4.63	6.97	-10.27	-35.41	-5.39
6 Diesel fuel taxes	8.21	15.05	6.45	-12.86	4.47	-1.55	-0.36	-6.87	-12.93	-2.96
7 Noncommercial vehicle licences	13.65	2.69	-0.98	4.69	1.56	-0.77	-2.18	1.18	-7.87	-0.84
8 Commercial vehicle licences	1.79	4.36	2.84	-2.16	5.07	1.74	-8.76	-17.04	-31.79	-7.93
9 Revenues from sale of spirits	6.11	-9.35	-3.37	8.41	14.94	-3.87	-11.09	-3.80	-16.54	-17.04
10 Revenues from sale of wine	8.75	6.79	5.21	6.91	-0.47	0.89	3.58	6.08	0.31	-5.12
11 Revenues from sale of beer	-1.25	2.79	2.66	2.06	-1.24	0.06	2.04	3.63	2.57	0.68
12 Hospital/medical ins. premiums	7.16	4.25	-0.57	1.90	4.21	-4.04	4.69	7.49	1.42	-1.51
13 Succession duties/gift taxes	1.39	1.21	0.00	1.19	0.45	-0.35	0.70	0.26	-0.99	-0.30
14 Race track taxes	5.42	2.24	3.75	4.16	1.22	-1.76	1.68	4.36	-1.18	0.50
15 Forestry revenues	4.67	13.41	12.20	0.01	7.58	9.36	11.43	9.94	11.18	-54.11
16 Crown oil revenues	24.72	24.72	24.72	24.68	24.72	24.72	17.81	-343.27	-1,638.78	-20.47
17 Freehold oil revenues	1.86	1.86	1.86	1.86	1.86	1.69	-4.95	-25.30	-83.21	1.10
18 Crown gas revenues	20.62	20.62	20.62	20.46	20.62	20.62	20.62	-33.35	-1,105.96	-107.38
19 Freehold gas revenues	0.15	0.15	0.15	0.15	0.15	-0.09	0.15	-0.44	-35.74	0.02
20 Sales of Crown leases	10.29	10.29	10.29	10.29	10.29	10.29	10.29	-56.34	-365.88	-39.71
21 Other oil and gas revenues	0.79	0.79	0.79	0.79	0.79	0.79	0.69	-6.26	-44.19	-2.36
22 Mineral revenues	-42.25	15.66	7.22	-2.11	6.16	-0.46	-6.37	-0.43	9.58	-10.29
23 Water power rentals	-31.94	4.69	4.20	2.90	-2.37	2.53	-3.98	3.48	4.35	-2.12
24 Insurance premium taxes	6.64	4.76	3.82	2.50	-0.45	-0.28	2.47	1.67	-1.88	0.42
25 Payroll taxes	26.31	26.81	14.88	19.69	6.30	-5.79	7.63	14.49	-2.89	-4.39
26 Property/school taxes	61.93	57.97	48.55	49.18	21.82	-10.75	3.47	-6.70	-57.63	-15.90
27 Lottery revenues	5.67	4.11	2.81	3.95	1.48	-0.95	0.83	0.61	-0.21	-0.98
28 Miscellaneous provincial taxes	32.65	31.81	25.20	24.47	9.99	-4.56	7.94	-9.29	-46.66	-8.55
29 Shared tax on undist. inc.	0.06	0.06	0.06	0.06	-0.09	0.04	0.06	0.07	0.02	0.05
30 Shared oil export charge	6.67	6.67	6.67	6.67	6.67	6.67	6.67	-129.65	-18.15	6.67
31 Municipal-tax revenues	110.32	103.27	86.49	87.62	38.88	-19.16	6.19	-11.94	-102.67	-28.33
32 Potash revenues	8.78	8.78	8.78	8.78	8.78	8.78	8.78	-170.60	8.78	8.78
33 Capital tax	12.36	18.22	12.06	10.59	7.02	-2.87	2.49	0.06	-39.96	-8.21
34 Local government sales of goods and services	53.09	51.72	40.97	39.78	16.24	-7.42	12.91	-15.11	-74.23	-13.91
TOTAL	912.63	1,007.13	708.54	701.04	382.32	-55.07	339.98	-685.69	-4,311.91	-596.12

SOURCE: Department of Finance (1982a, 17).

Equalization payments

positive entitlements range from \$1,007.13 for Prince Edward Island to \$382.32 for Quebec. Negative entitlements range from minus \$55.07 for Ontario to minus \$4,311.91 for Alberta. As in the previous formula, negative entitlements are set to zero.

Note that these overall entitlements by province *can also be calculated from the aggregate figures of the previous table*. The overall RFPS total from Table 12.2 is \$2,540.77 per person. For Newfoundland the total yield at national average rates is \$1,628.14, a difference of \$912.63. This difference is the total for Newfoundland that appears in Table 12.3. Except for rounding errors, it is the sum of the per capita entitlements for the 34 revenue sources.

Equalization payments

Table 12.4 converts the per capita entitlements into dollar values. For 1982-83 equalization payments under the RFPS formula total \$4,557.6 million. As the notes beneath Table 12.4 indicate, these *formula-generated* payments can be dominated by the transitional guarantees that are part of the RFPS. In terms of these 1982 data, transitional guarantees come into play for two provinces—Quebec and Manitoba, whose payments will be raised to \$2,552 million and \$431 million respectively. The more recent data in the appendix to this chapter indicate that the transitional guarantees apply to all 'have-not' provinces except Newfoundland. I shall have more to say about the transitional guarantees later.

This \$4,557 million total compares with a total for 1981-82 under the old RNAS approach of \$4,160.2 million (from Table 4.3 above). However, as will be pointed out below, had the RNAS approach been continued intact for 1982-83, equalization would have risen to over \$5 billion for these same six recipient provinces.

The final column of Table 12.4 presents data, by revenue source, on the number of cents of equalization generated for each dollar of revenues that enter the formula. It is of interest to compare these amounts with the corresponding figures for the RNAS program, which appear as the last column of Table 4.3. The differences in these two sets of figures reflect, of course, the different equalization standards. Under the RFPS each dollar of business income revenue (category 2) yields 8 cents of equalization, whereas under the RNAS the amount was 11.1 cents. The difference occurs because Alberta has far and

TABLE 12.4
Equalization entitlements under the RFPS formula, 1982-83 (\$ millions)

Revenue source	NFLD	PEI	NS	NB	QUE	ONT	MAN	SASK	ALTA	BC	Receiving provinces	Equalization per dollar of revenues equalized (cents) ^b
1 Personal income taxes	191.3	43.7	203.7	198.9	592.8	-431.9	146.7	83.2	-479.2	-390.8	1377.1	7.9
2 Business income revenues	48.9	10.3	47.6	34.8	169.6	-149.8	30.0	31.2	-461.4	-81.0	341.3	8.0
3 General sales taxes	52.1	14.7	49.3	40.9	291.1	-88.5	59.7	-21.0	-501.0	-241.3	507.8	6.1
4 Tobacco taxes	5.3	1.3	2.7	-4.9	-42.8	28.6	7.8	11.6	2.5	-5.2	-30.6	-2.9
5 Gasoline taxes	15.7	0.1	3.8	-8.0	58.2	-40.2	7.2	-10.0	-81.3	-15.1	76.9	2.8
6 Diesel fuel taxes	4.7	1.8	5.5	-9.0	28.8	-13.4	-0.4	-6.7	-29.7	-8.3	31.5	5.1
7 Noncommercial vehicle licences	7.8	0.3	-0.8	3.3	10.1	-6.6	-2.3	1.0	-18.1	-2.3	18.4	2.1
8 Commercial vehicle licences	1.0	0.5	2.5	-1.5	32.7	15.1	-9.0	-16.6	-73.0	-22.2	26.2	4.5
9 Revenues from sale of spirits	3.5	-1.2	-2.9	5.9	96.4	-33.6	-11.4	-3.7	-38.0	-47.7	90.3	7.7
10 Revenues from sale of wine	5.0	0.8	4.5	4.8	-3.0	7.7	3.7	6.9	0.7	-14.3	15.8	6.5
11 Revenues from sale of beer	-0.7	0.3	2.3	1.4	-8.0	0.5	2.1	3.5	5.9	1.9	-2.6	-0.5
12 Hospital/medical ins. premiums	4.1	0.5	-0.5	1.3	27.1	-35.0	4.8	7.3	3.3	-4.2	37.4	2.3
13 Succession duties/gift taxes	0.8	0.2	0.8	.8	2.9	-3.0	0.7	0.3	-2.3	-0.8	6.1	12.7
14 Race track taxes	3.1	0.3	3.2	2.9	7.9	-15.3	1.7	4.3	-2.7	1.4	19.1	14.7
15 Forestry revenues	2.7	1.6	10.4	0	48.9	81.2	11.3	9.7	25.7	-151.5	75.4	26.2
16 Crown oil revenues	14.1	3.0	21.1	17.3	169.5	214.5	18.3	-334.9	-3,762.5	-57.3	233.3	5.4
17 Freehold oil revenues	1.1	0.2	1.6	1.3	12.0	14.7	-5.1	-24.7	-191.0	3.1	11.1	4.8
18 Crown gas revenues	11.8	2.5	17.6	14.3	133.1	179.0	21.2	-32.5	-2,639.2	-300.7	200.5	6.7
19 Freehold gas revenues	0.1	0.0	0.1	.1	1.0	-0.8	0.2	-0.4	-82.0	0.1	1.5	1.7
20 Sales of Crown leases	5.9	1.3	8.8	7.2	66.4	89.2	10.6	-55.0	840.0	-111.2	100.1	9.4
21 Other oil and gas revenues	0.5	0.1	0.7	.6	5.1	6.9	0.7	-6.1	-101.4	-6.6	7.6	6.4
22 Mineral revenues	-24.2	1.9	6.2	-1.5	39.7	-4.0	-6.5	-0.4	22.0	-28.8	15.6	4.1
23 Water power rentals	-18.3	0.6	3.6	2.0	-15.3	21.9	-4.1	3.4	10.0	-5.9	-31.4	-26.8
24 Insurance premium taxes	3.8	0.6	3.3	1.8	-2.9	-2.5	2.7	1.6	-4.3	1.2	9.1	2.9
25 Payroll taxes	15.0	3.3	12.7	13.8	40.7	-50.2	7.6	14.1	-6.6	-12.3	93.2	6.3
26 Property/school taxes	35.4	7.1	41.5	34.4	140.8	-93.3	3.6	-6.5	-132.3	-44.5	262.8	5.8
27 Lottery revenues	3.2	0.5	2.4	2.8	9.5	-8.2	0.9	0.6	0.5	-2.8	19.3	5.7
28 Miscellaneous provincial taxes	18.7	3.9	21.5	17.1	64.4	-39.6	8.2	-9.1	-104.8	-24.0	133.8	6.7
29 Shared tax on undist. inc.	0.0	0.0	0.0	0	-0.6	0.3	0.1	0.1	0.1	0.1	-0.4	-28.6
30 Shared oil export charge	3.8	0.8	5.7	4.7	43.1	57.9	6.9	-126.5	-41.7	18.7	64.9	34.2
31 Municipal-tax revenues	63.1	12.7	74.0	61.3	260.8	-166.2	6.4	-11.6	-235.7	-79.3	468.2	5.8
32 Potash revenues	5.0	1.1	7.5	6.1	56.6	76.2	9.0	-166.4	20.2	24.6	85.4	48.8
33 Capital tax	7.1	2.2	10.3	7.4	46.3	-24.9	2.6	0.1	-91.7	-23.0	74.9	9.5
34 Local government sales of goods and services	30.4	6.4	36.0	27.8	104.8	-64.4	13.3	-14.7	-170.4	-38.9	217.6	6.7
TOTAL ENTITLEMENTS	521.9	123.8	605.8	490.1	2,466.6	-477.9	349.4	-669.0	-9,899.7	-1,669.1	4,557.6	6.5
TOTAL PAYMENTS	521.9	123.8	605.8	490.1	2,466.6 ^a	0.0	349.4 ^a	0.0	0.0	0.0	4,557.6	

^a The total payments for Quebec and Manitoba are the formula-generated payments. The two provinces will receive more than these amounts in equalization for 1982-83 because those figures are below the transitional-guarantee levels (i.e., \$2,552 million for Quebec and \$431 million for Manitoba).

^b Calculated by dividing the figures in the previous column by total revenues eligible for equalization for the respective revenue sources (i.e., the last column of Table 12.1).
SOURCE: Department of Finance (1982a, 10).

Equalization payments

away the largest per capita base for business income revenues and it is not one of the five provinces that make up the RFPS. However, the most significant differences arise in connection with the resource revenues. Crown oil revenues (source 16) generate 5.4 cents in equalization under RFPS for each dollar of revenue equalized. *The comparable figure for the RNAS was 39.8 cents!* The figures for freehold gas revenues (category 19) are even more dramatic—1.7 cents and 40.0 cents respectively. Once again this occurs because Alberta has the lion's share of the base. Defining the standard for equalization to exclude Alberta has paved the way for bringing *all* energy revenues into the formula with little cost in terms of equalization flows.

In order to understand more fully the nature of the changes ushered in by the RFPS formula it is appropriate to compare it with what would have occurred under alternative programs, specifically the Ontario standard and a continuation of the RNAS program. To this the analysis now turns.

RFPS, ROS, AND RNAS: A COMPARISON

Table 12.5 presents the 1982-83 equalization flows that would have arisen from the alternative formulations. Row panel A reproduces the RFPS results from the previous tables. Row panel B presents equalization flows for the Ontario standard. In total, they exceed the payments associated with the RFPS (\$5,093 million versus \$4,557 million). This occurs because the total figure for Ontario in Table 12.2 exceeds the corresponding total for the RFPS by roughly \$55 per capita. Hence, *each recipient province's equalization* in Table 12.5 is increased by this per capita amount relative to what it receives under the RFPS.¹

Row panel C contains estimates of equalization under the assumption that the RNAS was still in force for 1982-83. Underlying these calculations are the following assumptions (consistent with the operations of the RNAS over 1981-82): (a) revenue sources 31 and 34 are deleted since they were not part of the RNAS; (b) only one-half of the revenues arising from the nonrenewable resource categories (16 to 19, 21, 22, 30, and 32) enter the formula; and (c) revenue source 20 (sales of Crown leases) is deleted, as it was in 1981-82. Performing these calculations leads to the RNAS equalization flows in Table 12.5. A continuation of the RNAS would have generated over \$700

TABLE 12.5
Equalization flows: alternative approaches, 1982-83

	NFLD	PEI	NS	NB	QUE	ONT	MAN	SASK	ALTA	BC	TOTAL
A. <i>RFPS</i>											
\$ per capita ^a	912	1,007	708	701	382	(-55)	340	(-685)	(-4,311)	(-591)	
\$ millions	522	124	606	490	2,466 ^c	0	349 ^c	0	0	0	4,557
B. <i>Ontario standard</i>											
\$ per capita ^a	967	1,062	763	756	437	0	395	(-630)	(-4,256)	(-541)	-
\$ millions	553	130	652	528	2,821	0	406	0	0	0	5,093
C. <i>RNAS</i>											
\$ per capita	916	989	723	720	461	<i>b</i>	495	<i>e</i>	<i>e</i>	<i>e</i>	-
\$ millions	524	121	618	503	3,013	<i>b</i>	509	0	0	0	5,289
D. <i>RNAS^d</i>											
\$ per capita	1,245	1,340	1,041	1,034	715	<i>b</i>	673	(-352)	(-3,979)	(-258)	
\$ millions	712	165	890	723	4,616	<i>b</i>	692	0	0	0	7,799

^a Bracketed figures for provinces represent negative entitlements. Equalization flows are set to zero for these provinces.

^b From the RNAS formula, Ontario would qualify as a 'have-not' province, but its equalization would be set to zero by virtue of the personal income override.

^c This excludes the transitional guarantee, which for Quebec equals \$2,552 million and for Manitoba equals \$431 million. Under the RFPS provisions, equalization for these two provinces would be brought up to the level of the transitional guarantee. For all other recipient provinces, the RFPS equalization exceeds the transitional guarantees—at least according to the March 1982 estimates (see the Appendix to this chapter).

^d This row assumes that 100 per cent of all revenues are equalized to the national average level.

^e Not calculated, but they would be negative.

SOURCE: Tables 12.1-12.4.

million more in equalization than the RFPS system (\$5,289 million versus \$4,557). However, for the Atlantic Provinces the two approaches generate roughly comparable equalization payments (compare row panels A and C in Table 12.5 for the Atlantic Provinces). *Thus, it is Quebec and particularly Manitoba that incur the costs of the switch to the RFPS.* In per capita terms, Manitoba loses \$155 and Quebec \$79. Indeed, under the RNAS approach Manitoba's equalization on a per capita basis is \$34 higher than Quebec's, whereas under the RFPS it is lower by a roughly similar amount. Sorting out why and where these changes come about in the transition to the RFPS will be the purpose of the following section.

First, however, let us turn to the final row panel of Table 12.5, which presents equalization flows under the assumption that *all* provincial revenues are brought up to the national average standard. Under this approach, equalization would soar to \$7.8 billion, even with Ontario excluded from being a recipient. Were Ontario allowed to be a recipient, its per capita equalization would be \$279 (i.e., \$2,874 from the last column of Table 12.2, minus the Ontario aggregate of \$2,595). In dollar terms this would amount to \$2.4 billion, for an overall level of equalization in excess of \$10 billion, more than double the actual equalization flows. Little wonder, then, that the combination of comprehensive coverage, national average standard, and 100 per cent eligibility for provincial revenues was never on the menu of alternatives.

*RNAS to RFPS: the anatomy of the transition*²

Table 12.6 presents more detail relating to the transition from RNAS to RFPS for the six recipient provinces. For each alternative approach to equalization, the revenue sources are subclassified into three components: (1) the 'old' nonresource revenues, (2) the resource revenues, and (3) the new revenue categories.

As the total figures (the last column) indicate, the move from the RNAS to the RFPS generated a slight drop in the equalization flows arising from the nonresource revenues (i.e., \$3,386 million versus \$3,103 million). The drop occurs because, on average, the yield at national average rates in the five provinces is *less* than the national average yield. This means, essentially, that for these categories the omission of Alberta from the formula has more impact than the

TABLE 12.6

Allocating equalization payments: alternative approaches, 1982-83 (\$ millions)

	NFLD	PEI	NS	NB	QUE	MAN	Total receiving provinces
A. RNAS							
1 Nonresource revenues (1-14, 24-29, 33)	443	95	439	370	1,735	304	3,386
2 Resource revenues (15-23, 30, 32)	81	26	179	133	1,278	205	1,903
3 New categories (31, 34)	-	-	-	-	-	-	-
4 Total equalization	524	121	603	503	3,013	509	5,289
B. RFPS							
1 Nonresource revenues	426	93	404	349	1,561	262	3,103
2 Resource revenues	3	13	83	52	550	67	768
3 New categories	93	18	109	89	355	20	686
4 Total equalization	522	124	606	490	2,466	349	4,557
C. Ontario standard							
1 Nonresource revenues	497	105	510	428	2,289	383	4,208
2 Resource revenues	-46	3	11	-7	2	-24	-62
3 New categories ^a	102	22	131	107	530	47	947
4 Total equalization	553	130	652	528	2,821	406	5,093
D. National average standard^b							
1 Nonresource revenues	443	95	439	370	1,735	304	3,386
2 Resource revenues	175	50	341	261	2,501	364	3,693
3 New categories	94	20	110	92	380	24	720
4 Total equalization	712	165	890	723	4,616	692	7,799

^a Revenue category 34 was not part of the proposed Ontario standard, but it is included in these calculations.

^b The national average standard differs from the RNAS in that 100 per cent of all revenues are deemed eligible for equalization.
SOURCE: Tables 12.1 to 12.4.

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omission of the four Atlantic Provinces. In any event, the main differences between the two programs are not to be found in the equalization of nonresource revenues. However, it is clear from panel C of Table 12.6 that the traditional nonresource revenue categories generate considerably more equalization under the Ontario standard than they do under the RNAS or the RFPS. This is not surprising, since, from Table 12.2, the per capita yield of these revenue sources at national average tax rates for Ontario is greater than it is for either of the other two standards.³

It is in the treatment of resource revenues that the RFPS differs markedly from the RNAS. Because the RFPS excludes Alberta, the RFPS equalization flows from resources are far smaller than they would be under a continuation of the old system—\$768 million versus \$1,903 million. Moreover, 100 per cent of nonrenewable resource revenues entered the RFPS program but only 50 per cent of such revenues entered the RNAS! Comparisons across provinces reveal that the impact of the move from a national-average standard for resources to a five-province standard is very uneven. For example, Newfoundland's resource-related equalization falls from \$81 million to \$3 million, while Prince Edward Island's falls from \$26 million to \$13 million.

If one focuses on the impact of the resource revenues under the Ontario standard, it is easy to see why the provinces were so concerned with the initial proposal. Overall (the last column of Table 12.6), resource-related equalization for the Ontario standard is *negative*. Thus, under the Ontario standard, equalization is larger in aggregate if the \$10 billion in resource revenues are excluded from the formula.⁴ This is so because Ontario has little or no tax base for most of the resource categories (see Table 12.1). For example, despite the fact that Crown oil revenues amount to more than \$4 billion (category 16, Table 12.1), *the provinces get no equalization payments from this source because under the Ontario standard they are brought up to the Ontario level for the source, which, from Tables 12.1 and 12.2, is zero*. The RFPS formula is somewhat more generous in this regard; nevertheless, because the RFPS excludes the province with by far the largest resource base (Alberta), energy revenues contribute a much lower proportion of total equalization under the RFPS than they did under the RNAS.

Even though the resource revenues, overall, contribute negatively to total equalization under the Ontario standard, the aggregate level of equalization payments is higher under this regime than it is under the RFPS because for the remainder of the categories, equalizing up to the Ontario level is more generous than equalizing up to the five-province standard.

The final category of revenues in Table 12.6 comprises the new revenue sources introduced under the RFPS. They yield almost three-quarters of a billion dollars in equalization flows and provide a substantial but not full offset to the drop in resource-related equalization arising from the switch from RNAS to RFPS.

Thus the RFPS downplays resource revenues dramatically in comparison with the former equalization formula. Since the distribution across provinces of most of the remaining revenue sources is not all that different from the distribution across provinces of, say, gross domestic product, equalization under the RFPS will conform more closely than did equalization under the RNAS to the traditional measures of regional disparity. This is why Quebec and Manitoba lose so much in the switch from RNAS to RFPS. Table 12.6 shows that resource-related equalization under the RNAS approach amounted to only about 25 per cent of total equalization for New Brunswick and Nova Scotia and even less for Prince Edward Island and Newfoundland. For Manitoba and Quebec, on the other hand, resource revenues accounted for roughly 40 per cent of total equalization. Hence, reducing the equalization arising from resources, as the RFPS does, hits Manitoba and Quebec the hardest. Indeed, Manitoba's equalization payment under the last year of the RNAS regime (1981-82) was *larger* than it is for 1982-83 under the RFPS—hence the rationale for transitional payments as part of the RFPS.

MANITOBA, QUEBEC, AND THE TRANSITIONAL GUARANTEES

Table 12.7 presents the calculations relating to the transitional guarantees as of March 1982 (see the note beneath the table). Row 3 is of considerable interest because it shows the impact by province of the transition from RNAS to RFPS. The increases in equalization payments for the Atlantic Provinces range from 18 per cent to 21 per

TABLE 12.7

The transitional guarantees under the RFPS, March 1982 estimates (\$ millions)

		NFLD	PEI	NS	NB	QUE	MAN	TOTAL
1	RNAS equalization (1981-82) ^a	431	103	513	415	2,306	392	4,160
2	RFPS equalization (1982-83)	522	124	606	490	2,467	349	4,558
3	Percentage increase (row 2 ÷ row 1)	21%	20%	18%	18%	7%	-11%	9.6%
4	Equalization (1977-78)	278	63	342	273	1,322	237	
5	Annual average increase (1977-78 to 1981-82)	38	10	43	35	246	39	
6	Transitional guarantee for 1982-83 (row 1 + row 5) ^b	469	113	556	450	2,552	431	
7	Actual RFPS flows for 1982-83 (larger of row 2 + row 6)	522	124	606	490	2,552	431	4,725
8	Actual increase (%) (row 7 - row 1) row 1	21%	20%	18%	18%	11%	10%	13.6%

NOTE: These are the transitional guarantees as per the March 1982 estimates of equalization for fiscal year 1981-82 (i.e., the figures in row 1). More recent estimates appear in the appendix to this chapter.

^a From tables in Chapter 4.

^b As noted, this equals the 1981-82 equalization plus the average annual change in equalization over the five-year period of the last fiscal arrangements. For 1983-84, the guarantee is the 1981-82 level plus 5/3 of this average annual change and for 1984-85 the transitional guarantee equals the 1981-82 level plus twice the average annual change. There is no guarantee beyond fiscal year 1984-85.

cent. Quebec's increase is only 7 per cent, while Manitoba registers an 11 per cent *decline* in equalization from fiscal year 1981-82 to fiscal year 1982-83.

Row 6 of the table provides the values of the transitional minimum-payment levels for 1982-83. According to the March 1982 estimates, these transitional minimums are lower than the actual equalization payments for each of the Atlantic Provinces. Not so for Quebec and Manitoba, whose total payments under RFPS become \$2,552 million and \$431 million respectively as a result of the transitional guarantees. As row 8 of Table 12.7 indicates, their overall percentage equalization increases are now 11 per cent and 10 per cent. In dollar terms, the transitional guarantees bolster the RFPS formula-generated flows by \$85 million for Quebec and \$82 million for Manitoba.

Aggregate formula-generated equalization flows increase by 9.6 per cent from 1981-82 to 1982-83. Incorporating the transitional payments increases the overall percentage increase to 13.6 per cent.

These observations apply to the March 1982 estimates. More recent estimates for fiscal year 1982-83 indicate that *all 'have-not' provinces except Newfoundland* now qualify for transitional payments. As was noted above, this situation reflects the severity of the economic downturn, which was not forecast in the March 1982 estimates.

A SENSITIVITY ANALYSIS OF THE RFPS

Up to this point, the analysis of the operations of the RFPS has been directed primarily toward aggregate equalization flows either in their own right or in the context of a comparison with the RNAS and the ROS. The remainder of the chapter examines some of the inner workings of the RFPS system. In this section I shall focus on the implications of the switch from a national-average to a five-province standard for such things as tax rate changes, tax base shifts, and population flows. The results that follow are derived from a paper that I wrote jointly with David Wildasin (Courchene and Wildasin 1983). This paper appears as a technical appendix to this study. As will become evident, the five-province standard has some very disturbing characteristics. Among them is the following: if a province that is not included among the five provinces in the standard experiences an increase in its tax base, it will under normal conditions

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lose in equalization an amount that *exactly offsets* its increase in own revenues from this tax base increase.

My approach in conducting the analysis relating to the impacts of changing various parameters of the RFPS formula will in general be to summarize the results of the Courchene-Wildasin paper, although on occasion I shall present the intuition behind the results. The analysis in Chapter 5 relating to a similar set of experiments with respect to the RNAS formula provides a backdrop against which to assess the results for the RFPS.

Changing tax rates

Under the RNAS, an increase in a province's tax rates will increase own revenues *and*, if the province is poor for this tax base, also increase equalization. For any other province, equalization entitlements will increase if the province is a 'have-not' province for this tax base, and vice versa. *These results also hold for the RFPS.* This is clear from equation 12.1, since all that occurs under this experiment is that the national average tax rate, t_j , increases. However, this is the only experiment for which the national-average and five-province standards yield similar results.⁵

Changing own tax bases

Assume that a province's own tax base increases. Under the RNAS, other things being equal, there will be two opposing effects on equalization: (1) the province will be richer and so its equalization will fall; (2) total revenues to be equalized will go up and on this count the province's equalization will increase. Overall, its equalization will fall but not sufficiently to reduce total revenues (own revenues plus equalization). There is an exception to this. It is possible for total revenues to fall if the province's own tax rate for the revenue base is well below the national average tax rate.

This same general result holds under the RFPS if the province is one of the five making up the standard, although there is an important difference relating to resource revenues. Under the RNAS only 50 per cent of resource revenues entered the formula, so the possibility of a decline in overall revenues was remote. Not so under the new formula, since now 100 per cent of resource revenues are eligible for equalization.

However, if the province is not one of the five, *the loss offset is 100 per cent*—the province loses in equalization exactly what it gains in own revenues from being richer. And if its tax rate is even the slightest bit below the national average tax rate, its *total* revenues fall. The intuition here is clear. If the province is in the standard, its own base and the base of the standard both increase. If it is out of the standard, only its own base increases and its fiscal deficiency declines correspondingly. In terms of equation 12.2, an increase in the base for province i will not affect the first term, $t_j(B/P)_{RFPS}$, if (a) the province is not in the RFPS and (b) its own tax rate is identical to the national average rate, t_j . Hence, the province's equalization will, from the second term of equation 12.2, fall by the product of t_j and the increase in the base. But this is exactly the increase in own revenues, so the equalization offset is 100 per cent.

Cross-base changes

Under the RNAS, a province's equalization will increase if some other province's base increases. This follows from Chapter 4's equation 4.1A (in note 4 to that chapter) both because total revenues increase and because the province's share of the total base falls (its fiscal deficiency rises). The same result occurs under the RFPS provided the province whose base increases is part of the standard. However, what happens to Nova Scotia's equalization if the tax base in Alberta (not among the five) rises? The answer is that Nova Scotia's equalization will remain the same, provided that Alberta's tax rate is the same as the national average rate. If it is lower (as it is for personal income taxes and sales taxes), then an increase in these tax bases in Alberta will *decrease* equalization for Nova Scotia. This is clear from equation 12.1, since the only change would be that t_j (the national average tax rate) would fall. This, too, is an undesirable feature of the new standard.

The case where the base is 'transferred' from one province to another (think of a company headquarters changing provinces) is more complicated. However, from equation 12.1 the following statement is clear for a shift of a corporate headquarters out of Quebec: Quebec stands to gain more in equalization if the company moves to Ontario (which is in the standard) than it does if the company moves to Alberta. This is so because the first term of the bracketed expression in 12.1 is unaffected in the former case whereas

it falls in the latter, and the drop in Quebec's per capita base is the same under both scenarios. Thus Finance Minister Parizeau's tongue-in-cheek remark to the effect that under an Ontario standard it might be more beneficial for Quebec to tailor its development policies to Ontario industries than to promote the development of its own industries also has considerable relevance in the context of a five-province standard.

Population shifts

Two cases are of interest here—population shifts that do not affect tax bases and population shifts that do. The former relate to energy resources, for which many provinces have a zero tax base. Hence equalization payments for these categories are essentially demogrants; that is, they are a function of a province's population. Under a national-average standard, a transfer of population between two 'have-not' provinces with zero tax bases will leave equalization *per capita* unchanged for these two provinces. (In *dollar* terms, equalization will fall for the sending province and rise for the receiving province.) The same is true under a five-province standard if the receiving and sending provinces are both in, or both out of, the standard. However, if the population-receiving province is in the standard and the sending province is excluded, then *per capita* equalization for the receiving province will *fall*. Indeed, equalization will fall for *all* provinces, since the RFPS standard is now lower. This is so because the first term of the bracketed expression in equation 12.1 will fall, whereas the second term is, by definition, zero. The opposite results obtain if the sending province is in the standard and the receiving province outside.

Matters become more complicated when we consider those revenue categories for which a shift in population also involves a corresponding transfer of tax bases. Once again, however, any result is possible if the transfer occurs between provinces that are not either both in or both out of the standard.

While the analysis underlying the above implications is fairly technical and, hence, relegated to an appendix to the study, the implications themselves are, from a theoretical vantage point, quite significant. The move from a national-average standard to a five-province standard has led to a situation in which equalization flows

depend on whether changes in population and economic activity occur in provinces that are included in or excluded from the standard. In other words, *equalization-receiving provinces are no longer neutral with respect to the location of economic development within the federation*. This is surely not a desirable feature of an equalization program.

THE RFPS AND THE DEFINITION OF TAX BASES

Mineral revenues

Since only 50 per cent of nonrenewable resource revenues entered the RNAS formula, the prospect of a 'have-not' province's losing overall revenues because it developed its resource base did not arise. The RFPS has ushered in two changes: first, 100 per cent of all resource revenues enter the formula; second, as noted in the previous section, for 'have-not' provinces not among the five provinces making up the standard the mechanics of the RFPS are such that the loss offset is exactly 100 per cent. Therefore a 'have-not' province's *overall revenues will fall* if the province's tax rate on the resource base in question is less than the national average tax rate.

Two other concerns enter the picture. First, if a province is required to spend money to develop its resource base it *will* lose revenues overall, since *gross rather than net* revenues enter the RFPS formula. Second, the 100 per cent loss offset implies that the resource bases are defined appropriately—that is, in terms of their potential rents. If they are not appropriately defined, 'have-not' provinces face the possibility of losing significant amounts of revenue overall as a result of developing their resource sectors.

This issue was brought to the fore in the previous chapter in the context of the impact on Newfoundland's equalization for mineral revenues under the proposed Ontario standard (see Table 11.1). The move to the RFPS formula removed some of the problem because (a) the standard was broadened from Ontario to five provinces and (b) potash revenues became a separate category. Nonetheless, the problem still remains. Table 12.8, modelled after Table 11.1, reports the net impact under RFPS (after separating out potash revenues) on Newfoundland's total revenues arising from its mineral activities. As the last line of Table 12.8 indicates, Newfoundland's overall revenues would *increase* if it simply shut down its mining activity.

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TABLE 12.8

RFPS mineral-revenue entitlements, Newfoundland, 1982-83 (\$ millions)

	RNAS	RFPS
A Mining taxes and royalties	+17.5	+17.5
B Equalization	-12.0	-24.2
C Equalization assuming that Newfoundland shuts down	+4.5	+9.0
D Total equalization cost of earning the mining taxes and royalties	16.5	33.2
E Net benefit from mineral production (A-D)	1.0	-15.7

NOTE: The amounts in this table are based on tax bases prior to revision. No account is taken of the effects of mineral production on other provincial revenue sources such as personal and corporate income tax and general sales tax, or of the effects of such production on the tax bases for other taxes.

SOURCE: Provincial Finance Ministers and Treasurers (1981, 14) for the revenue estimate in line A. The remaining calculations are based on Tables 12.1 to 12.3.

This result occurs primarily because of the manner in which the tax base for mineral revenues is defined. Specifically, the former regime defined the tax base in terms of the *value added* of the composite mineral category rather than in terms of the resource rent that can be alienated from each component category. Table 12.9 illustrates this problem. Iron ore accounts for nearly 15 per cent of overall mineral value added (including potash) and nearly 19 per cent of the value of production, from which the value-added series is calculated. However, iron ore accounts for less than 6 per cent of total revenues from minerals. If one assumes that actual revenues collected are a proxy for the amount of rent associated with a mineral deposit, then defining the base in terms of the value added for minerals such as iron ore can substantially *overstate* a province's tax base. As a result, a province's negative equalization associated with mineral revenues can greatly exceed its actual revenues from minerals. In essence, this was Newfoundland's argument, since roughly 90 per cent of its mineral output (in either value-added or value-of-production terms) arises from iron ore.

TABLE 12.9

Comparative shares of provincial revenues and of tax base for metallic and nonmetallic minerals accounted for by selected minerals, 1979-80 (per cent)

Mineral	Share of provincial revenues	Share of value-added tax base	Share of production tax base
Iron	5.7	14.6	18.5
Uranium	5.3	7.5	6.1
Asbestos	4.3	6.5	6.0
Potash 36.6	8.7	7.3	
Coal	9.5	9.4	8.5
All other	<u>38.8</u>	<u>53.3</u>	<u>53.7</u>
TOTAL	100.0	100.0	100.0

SOURCE: Department of Finance (1983, Annex L, Table II).

The 1982 Fiscal Arrangements Act solved part of the problem by creating a separate revenue source for potash (from Table 12.9, potash has an even greater disparity in the other direction between share of value added and share of total revenue). However, subsection 2(10) of the Fiscal Arrangements Act gives the minister of finance the power, via the 'regulations' pursuant to the act, to subdivide the revenue source for metallic and nonmetallic minerals. Under pressure from Newfoundland, mineral resource revenues have been broken down into five separate sources: iron ore revenues, uranium revenues, asbestos revenues, coal revenues, and a catch-all category, other metallic and nonmetallic mineral revenues. The base for these categories is essentially the value of production. The composite revenue source is recreated by weighting the five categories by their share of total revenues. This weighting scheme effectively means that these categories have become *separate* revenue sources even though, for purposes of the formal arrangements, they have to be viewed as a single source.

This procedure does indeed improve matters substantially. Newfoundland's negative equalization associated with mineral revenues will now be much smaller (and appropriately so) than would otherwise have been the case. However, problems arising from the

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definitions of tax bases will continue to plague the RFPS formula. First, in all likelihood the provinces will raise concerns about other tax bases. Second, there will likely be increased pressure from the provinces to allow net rather than gross revenues to enter the equalization formula. Third, the federal compromise on mineral revenues only goes part of the way. It does not address the fact that different deposits of, say, iron ore will have different rents associated with them. The new approach still treats all deposits as identical. This arrangement is particularly likely to create difficulties with respect to energy royalties. The new categories for energy (see the appendix to this chapter), such as mined oil and heavy oil, are more appropriate than the previous set of categories; nevertheless the rents associated with alternative sources of mined oil or heavy oil can vary considerably. Moreover, it is not clear where offshore oil would fit into these categories. Perhaps this is a problem for the next set of negotiations over equalization, since offshore energy will probably not be on stream until after 1987. Nonetheless, the point stands: the combination of the five-province standard and the 100 per cent eligibility of energy revenues under the RFPS has considerably heightened provincial concerns over the definitions of tax bases.

Newfoundland and hydro

Chapter 5 highlighted the problem associated with defining the tax base for water power rentals with respect to Newfoundland and Quebec. To recapitulate briefly, the tax base was defined as '*the number of kilowatt hours of electricity generated in the province by publicly and privately operated electric utilities and industrial establishments from hydro sources....*' However, the 1969 Churchill Falls contract gave Hydro Quebec the right to buy almost all of the output from Newfoundland's Churchill Falls for 40 years, plus an option to renew the arrangement for an additional 25 years. The sale price of 3 cents per kilowatt hour in 1977 will fall to 2 cents if Quebec renews for the additional 25 years. Since electricity now commands roughly ten times the 1977 price, the rent transfer is enormous. As the Economic Council of Canada noted a few years ago:

The province of Newfoundland estimated [in 1978] the loss to the province to be in excess of \$400 million. If this numerical exercise were performed in mid-1980, by which time world oil

prices may have increased to more than \$35 per barrel, the forgone revenue would be in the order of \$2 billion per year and the loss to the province in excess of \$1 billion annually. (Economic Council of Canada 1980, 121-22)

To add insult to injury, Newfoundland is assigned the tax base for the hydroelectric production associated with Churchill Falls, and its resultant 'have' province status for this revenue source means that it also suffers a decrease in equalization. Over the last few years the province's loss in terms of equalization has been rising rapidly, particularly because of actions by British Columbia:

The impact on Newfoundland of the present system of equalizing water power rentals is severe and will become increasingly onerous if provincial revenues from water power rentals continue to increase. In this regard, the Province of British Columbia has taken actions in the past two years which have increased its revenues from water power rentals eightfold, i.e., from \$20 million in 1980-81 to an estimated \$165 million in 1982-83. This action by B.C. essentially explains why Newfoundland's negative equalization in respect of water power rentals more than tripled over this two year span to over \$30 million. B.C. supported its tax action in terms of the need 'to bring the price of electricity more in line with oil and natural gas prices'. The new B.C. rental rates are, moreover, scheduled to increase again on January 1, 1984 under the Water Act, B.C. Regulation 240/60. The B.C. Department of Finance has advised us that as a result of this increase their projected revenues from water power rentals in 1984-85 will reach \$250 million. This level would increase Newfoundland's equalization loss to approximately \$45 million.

If other provinces were to follow the B.C. lead, total provincial revenues from water power rentals could increase substantially further. B.C. accounts for about 75 per cent of total provincial revenues from water power rentals as of 1982-83, but for only about 19 per cent of the total tax base. If other provinces were to match B.C.'s tax effort, total provincial revenues from water power rentals could be well in excess of \$1 billion and Newfoundland's negative equalization could be in excess of \$200 million if the present base is retained.

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In fact, other provinces are unlikely to match what B.C. has done. In particular, Quebec, Manitoba and Newfoundland—which collectively account for about 63 per cent of the total provincial base—might be somewhat cautious about increasing their revenues from water power rentals because, unlike B.C., these provinces receive equalization and their entitlements would be somewhat reduced by any steps they take to increase their own revenues [because they are 'have' provinces for this revenue source]. These provinces would, to be sure, have a net gain in each case from increasing their rental levels. However, they might choose to increase their revenues from water power in some other form where the equalization offset would be less. On the other hand, Ontario—which accounts for 15 per cent of the total base—does not receive equalization and would not have this concern. (Department of Finance 1983, Annex P, 4)

Newfoundland's annual equalization loss of \$30 million now and possibly \$45 million in the next few years is to be compared with the *\$28 million in actual tax revenues that it collected from water power rentals in 1982-83!*

Not surprisingly, the federal government responded to Newfoundland's request to alter the tax base for water power rentals. Of the several possible alternatives the option selected was the following:

—For provinces other than Quebec and Newfoundland the tax base will be the number of megawatt hours of electricity generated from hydro sources.

—The tax base for Quebec and Newfoundland (defined as above) will initially be consolidated into a single tax base. It will then be allocated between these two provinces in accordance with their relative *shares of gross revenues* from the sale of all electricity generated within the provinces.

This approach has the dual advantage of (a) allocating the tax base between these two provinces more in line with their ability to extract rents from this source and (b) being sufficiently flexible to accommodate automatically any change in the Churchill Falls contract (which would presumably reallocate the shares of total revenues). However, it has the disadvantage that the province with

the higher tax effort (i.e., higher tax rate) is assigned a correspondingly larger share of the joint base. Consequently this new base is probably best viewed as a temporary solution that can be reviewed in connection with the 1987 equalization negotiations.

Compared with the previous definition, this new base is estimated to increase Newfoundland's equalization (or rather decrease its negative entitlements) for 1982-83 by roughly \$30 million and to decrease Quebec's equalization by \$20 million. These new definitions were not incorporated in Tables 12.1 to 12.4 above, but they are reflected in the more recent estimates presented in the appendix to this chapter.

There are two further comments to be made. First, in seeking alternatives to this problem the federal government decided *not* to opt for rolling all of the various revenue sources for electricity into a single tax base. This tax base would have included (i) water power rentals, (ii) remitted profits on provincially owned hydros, (iii) provincial corporation income tax revenues derived from private sector producers of electricity, and (iv) federal corporation income tax revenues, from private sector producers of electricity, shared with the provinces under the Public Utilities Income Tax Transfer Act. Nor did Ottawa opt for merging water power rentals with the catch-all category, miscellaneous revenues. Instead, water power rentals were maintained as a separate category for reasons that include the following:

A...reason for not eliminating water power rentals as a separate revenue source is that it would be directly opposite to the recommendations of a number of Canadian academics who argue that the weight of water power rentals in the equalization system should be *increased* to take account of the enormous revenues that are forgone by provinces that sell electricity at prices that are far below its potential market value, based upon its opportunity cost. (Ibid., 11)

This comment, along with a similar one by the Parliamentary Task Force, may indicate that future equalization revisions will indeed move in the direction of incorporating forgone as well as actual revenues into the definitions of the tax bases.

Equalization payments

Second, it is important to point out that the water power rental problem has nothing to do with the shift from RNAS to RFPS. It would have arisen with almost equal force had the RNAS approach been extended. It has merited discussion in this chapter because it was the 1982 revision of equalization that finally grappled with this long-standing concern.

CONCLUSION

The previous chapter focused on the series of events leading up to the implementation of the RFPS. The present chapter has dealt with the mechanics of the RFPS formula, the equalization flows it generates, and the characteristics of the transition from RNAS to RFPS. The latter part of the chapter discussed some of the internal workings of the RFPS. The appendix to this chapter outlines the revised tax bases in more detail and presents up-to-date estimates for 1982-83 equalization flows. The purpose of the last of the three chapters dealing with our new equalization program is to assess and evaluate the RFPS.

NOTES

- 1 This comparison is a bit misleading because revenue source 34 is included in the calculation of the Ontario standard in all of the tables, whereas in reality the source was not in the proposed ROS but was added as part of the RFPS. The reader can make the adjustment by subtracting the per capita equalization for revenue source 34 (Table 12.3) from the Ontario standard per capita figures in row B of Table 12.5. This deduction ranges from \$53 for Newfoundland to \$13 for Manitoba. Had Ottawa stuck to the ROS, it is possible that this source would have been added to it. However, to repeat, it was not included in the original ROS.
- 2 Much of this section is adopted word for word from Courchene (1983b).
- 3 However, it is important to note that the cost to the provinces of moving from the Ontario standard to the RFPS with respect to these nonresource revenues was much less than these figures indicate. This is so because of the interaction between the equalization program and the funding for the established programs. Under the latter, the provinces are guaranteed a specific amount per annum—part of which is made up of the equalized value of transferred personal income tax points (roughly 12.5 points) and 1 corporate tax point and the remainder of which is a cash grant. Since the equalized value of the tax-point transfer is less under the RFPS than it is under the Ontario standard (compare categories 1 and 2 for the ROS and for the RFPS in Table 12.2), any decline in equalization for these tax-point transfers will be offset *in full* by an increase in the cash component. Just after the February 1982 First Ministers Conference, the federal government issued a release that compared total cash flows under the RFPS and the ROS. For the former, Ottawa included not

only the increased cash flow referred to in the previous sentence, but also the transitional guarantees to Quebec and Manitoba. Overall, the two approaches for 1982-83 differed by only some \$15 million. While our concern in this paper is with the formula-generated equalization payments, this note serves as an effective reminder that the equalization program is part of a complicated package and that it is not entirely appropriate to view it in isolation from its larger context.

- 4 The \$10 billion dollar figure is roughly the value of resource revenues from sources 15-23, 30, and 32. See the last column of Table 12.1.
- 5 Even in this case the results are similar *only* if one takes the initial definitions of 'have' and 'have-not' provinces as given. It is possible for a province to be a 'have-not' province with respect to the national-average standard and a 'have' province with respect to the five-province standard for the same tax base. This possibility is set aside in generating the above results.

Appendix

1982-83 equalization and tax bases: latest estimates

The data set for 1982-83 employed in the text proper dates from March 1982. It was the first estimate of equalization for fiscal year 1982-83. For many purposes related to the evaluation of the new RFPS program it represents the ideal data set. However, because the severity of the recession was not fully anticipated as of March 1982, several components of the equalization projections are far wide of the mark. This is particularly true of the estimates of provincial revenues for cyclically sensitive sources such as business income revenues. The data that appear in the first part of this appendix represent the Department of Finance's fifth estimate of equalization flows for 1982-83 (dated 6 October 1983), and they are the latest figures available prior to going to press. I hasten to add that they are *not* the final estimates for 1982-83. However, they should provide a fairly accurate picture of what these final numbers will eventually be.

The second part of this appendix is devoted to listing and describing briefly the new revenue sources and the definitions of the corresponding tax bases.

THE LATEST EQUALIZATION FIGURES FOR 1982-83

Table 12A.1 presents data by revenue source relating to provincial revenues evaluated at national average tax rates. (The 37 revenue sources are defined later in this appendix.) The final column of the table presents the per capita RFPS yield. Per capita equalization entitlements by province for each revenue source can be calculated by simply subtracting the province's per capita yield from the RFPS yield. Similarly, the aggregate per capita entitlements for each

TABLE 12A.1
Per capita yield of national average tax rate applied to each province's tax base, by province and revenue source, 1982-83: October 1983 estimates (dollars per capita)

Revenue source	NFLD	PEI	NS	NB	QUE	ONT	MAN	SASK	ALTA	BC	RFPS
1. Personal income taxes revenues	383.71	348.44	473.42	422.71	613.99	766.28	565.39	659.74	936.40	854.11	713.56
2. Business income revenues	42.37	35.20	46.25	51.99	70.89	94.82	66.70	82.16	184.72	83.40	83.40
3. Capital tax revenues	23.19	25.00	20.40	26.66	30.59	43.19	33.36	34.74	94.04	46.02	38.58
4. General and miscellaneous sales taxes	229.09	205.95	262.54	260.89	260.04	330.40	270.10	340.75	547.92	393.73	313.82
5. Tobacco taxes	29.64	44.51	45.21	43.93	50.50	43.91	41.59	38.42	67.43	42.86	45.51
6. Gasoline revenue	72.54	96.46	92.67	102.89	86.98	99.43	94.61	108.39	129.60	102.98	96.08
7. Diesel fuel revenue	13.76	8.16	16.30	26.93	16.65	21.90	28.07	34.62	36.03	25.67	21.66
8. Noncommercial vehicle licences	19.25	30.59	32.04	27.94	28.71	33.88	34.38	30.85	40.72	30.95	31.68
9. Commercial vehicle licences	16.60	13.94	15.43	19.45	12.72	16.13	24.51	32.51	45.83	24.63	17.45
10. Spirits	45.30	51.06	54.90	39.28	30.37	54.34	62.14	56.64	78.92	69.60	49.22
11. Wine	4.08	5.38	7.41	5.59	13.55	12.18	9.81	7.01	13.84	20.28	13.38
12. Beer	21.47	16.71	17.89	18.46	22.24	21.56	18.83	16.43	19.63	21.00	21.31
13. Hospital and medical insurance premiums	55.14	56.06	64.93	61.50	73.45	78.29	69.08	66.14	78.29	79.02	75.75
14. Succession duties and gift taxes	0.47	0.75	1.09	0.49	1.34	2.92	1.10	1.60	3.98	3.18	2.28
15. Race track taxes	0.15	3.28	1.76	1.11	3.45	7.18	4.00	1.50	7.45	5.84	5.34
16. Forestry revenues	9.63	0.00	0.49	8.10	4.79	3.52	2.03	3.55	2.43	36.68	8.48
17. Conventional new oil revenues	0.00	0.00	0.00	0.00	0.00	0.03	0.14	36.41	89.04	8.89	3.04
18. Conventional NORP oil revenues	0.00	0.00	0.00	0.00	0.00	0.06	3.78	18.39	57.06	0.52	1.19
19. Conventional old oil revenues	0.00	0.00	0.00	0.01	0.00	0.25	6.44	155.05	685.41	23.25	11.28
20. Heavy oil revenues	0.00	0.00	0.00	0.00	0.00	0.00	0.00	262.67	67.32	0.00	12.86
21. Mined oil revenues	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	125.44	0.00	0.00
22. Domestically sold natural gas revenues	0.00	0.00	0.00	0.02	0.00	0.52	0.00	15.82	261.91	21.96	4.06
23. Exported natural gas revenues	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	321.39	26.48	3.69
24. Sales of Crown leases	0.00	0.00	0.00	0.00	0.00	0.15	1.25	43.89	139.18	11.55	3.89
25. Other oil and gas revenues	0.00	0.00	0.00	0.00	0.00	0.04	0.44	7.57	46.38	2.69	0.78
26. Minerals—iron	26.44	0.00	0.00	0.00	1.68	0.50	0.00	0.00	0.00	0.08	0.77
27. Minerals—uranium	0.00	0.00	0.00	0.00	0.00	1.84	0.00	8.46	0.00	0.00	1.21
28. Minerals—asbestos	0.94	0.00	0.00	0.00	0.90	0.00	0.00	0.00	0.00	0.33	0.34
29. Minerals—coal	0.00	0.00	9.35	1.44	0.00	0.00	0.00	2.09	7.80	9.55	1.43
30. Residual minerals	1.33	0.06	0.75	4.27	1.43	3.58	6.14	0.76	0.17	5.07	3.09
31. Potash revenues	0.00	0.00	0.00	0.00	0.00	0.00	0.00	37.71	0.00	0.00	1.84
32. Water power rentals	21.11	0.00	1.19	3.74	19.98	4.27	19.60	2.38	0.67	16.37	11.75
33. Insurance premium revenues	7.05	8.46	9.62	10.43	14.94	13.43	11.21	9.02	15.95	14.09	13.68
34. Payroll taxes	34.35	31.97	43.48	38.94	51.62	63.75	51.01	44.57	63.00	61.67	57.93
35. Provincial/local property tax revenues	332.76	345.63	367.89	368.75	433.58	519.49	477.70	509.78	661.98	553.36	493.73
36. Lottery revenues	9.44	11.14	12.35	11.20	13.96	16.79	14.65	15.54	16.55	16.62	15.68
37. Miscellaneous provincial/local revenues	136.39	136.22	161.34	156.62	186.17	227.92	191.13	212.71	309.88	249.20	214.71
TOTAL	1,536.30	1,475.07	1,758.81	1,713.45	2,044.64	2,482.72	2,109.33	2,898.02	5,159.54	2,861.80	2,394.64
Per capita equalization	858.34	919.57	635.82	681.18	349.99	-88.08	285.30	-503.38	-2,764.90	-467.16	-

SOURCE: Department of Finance (1983, Summary Tables 9 and 10).

Equalization payments

revenue source can be obtained from the total or aggregate figures. From the 'total' row of the table the aggregate RFPS figure is \$2,394.64 per capita. Per capita equalization entitlements appear as the last row of the table. They are obtained from a comparison of each province's aggregate with the RFPS aggregate.

At this juncture some comparison with the March 1982 estimates is in order. In the March 1982 data the per capita value of the five-province standard was \$2,540.77 (Table 12.2). The October 1983 estimate of the RFPS per capita aggregate is nearly \$150 lower. Further comparison of Table 12A.1 with Table 12.2 reveals that the estimates of the per capita aggregates of the 'have-not' provinces have also declined, but not by as much. Hence, the per capita entitlements in the last row of Table 12A.1 are *all* lower than the corresponding entitlements in the last row of Table 12.3.

Most of the decrease in the more recent equalization estimates arises because the earlier projections for provincial revenues were too high. For example, business income revenues, the bulk of which consist of corporate profits, were initially forecast to be \$4¼ billion (last column, Table 12.1). The recent estimates put these revenues at just under \$2¼ billion (last column, Table 12A.2). Not all of this drop is attributable to the recession: for example, in the spring of 1982 Ontario declared a two-year corporate tax holiday for small business, reducing the provincial small business corporate tax rate to zero. Estimates of energy revenues have also tumbled: the sum of the energy revenue categories in Table 12.1 is \$8.8 billion. From Table 12A.2, the estimate of energy revenues is now \$4.9 billion (although the energy revenues have been reclassified since the earlier estimates were made, no new sources have been added).

Table 12A.2 presents data on the dollar equalization flow by province and by revenue source. I shall highlight one or two of the table's entries, focusing first on the aggregate figures. Total equalization entitlements from the October 1983 estimates equal \$4,183.7 million, compared with \$4,557.6 million in the March 1982 projections (Table 12.4). *This decrease has dramatically altered the operations of the RFPS, since the transitional guarantees now become operative for most recipient provinces and not just for Quebec and Manitoba as reported in the text.* The values for the transitional guarantees by province appear in the second-last row of Table 12A.2. The reader will note that, except in Newfoundland's case, these

TABLE 12A.2
Equalization entitlements by province and revenue source, 1982-83: October 1983 estimates (\$ thousands)

Revenue source	NFLD	PEI	NS	NB	QUE	ONT	MAN	SASK	ALTA	BC	Total	Total to be equalized
1. Personal income taxes revenues	187753	44837	204654	203338	645482	-459438	153384	52716	-516320	-392144	1439448	17403247
2. Business income revenues	23354	5919	31659	21958	81072	-99508	17283	1213	-234759	-61	181245	2200527
3. Capital tax revenues	8761	1668	15493	8334	51764	-40179	5403	3762	-135449	-20750	91423	1048966
4. General and miscellaneous sales taxes	48229	13247	43698	37003	348614	-144546	45258	-26376	-542413	-222950	536049	8108775
5. Tobacco taxes	9033	123	254	1106	-32359	13959	4059	6944	-50796	7397	-17784	1158218
6. Gasoline revenue	13397	-47	2908	-4764	58969	-29172	1517	-12057	-77677	-19257	71980	2426290
7. Diesel fuel revenue	4501	1658	4575	-3679	32524	-2020	-6631	-12685	-33295	-11188	32948	558509
8. Noncommercial vehicle licences	7075	133	-312	2613	19215	-19240	-2796	806	-20960	2016	25928	789628
9. Commercial vehicle licences	485	431	1716	-1402	30666	11438	-7308	-14751	-65756	-20045	24588	493204
10. Spirits	2229	-226	-4838	6951	122164	-44654	-13380	-7263	-68824	-56867	112900	1273823
11. Wine	5292	983	5089	5450	-1108	10424	3694	6237	-1063	-19247	19400	313036
12. Beer	-88	565	2914	1991	-6048	-2164	2569	4779	3904	864	1903	514327
13. Hospital and medical insurance premiums	11732	2418	9221	9962	14921	-22135	6910	9413	-5888	-9109	55164	1833403
14. Succession duties and gift taxes	1033	188	1017	1254	6129	-5531	1221	673	-3937	-2491	10842	56649
15. Race track taxes	2953	253	3056	2957	12275	-16043	1383	3765	-4884	-1381	22877	126984
16. Forestry revenues	-654	1042	6812	270	23951	43223	6677	4835	14024	-78685	38098	186982
17. Conventional new oil revenues	1735	374	2598	2131	19759	26223	3008	-32675	-199260	-16316	29605	267296
18. Conventional NORP oil revenues	682	147	1021	838	7769	9867	-2681	-16844	-129432	1890	7776	156181
19. Conventional old oil revenues	6421	1385	9614	7880	73129	96084	5004	-140813	-1561974	-33404	103433	1813774
20. Heavy oil revenues	7321	1579	10961	8992	83374	112099	13314	-244671	-126192	35885	125541	413260
21. Mined oil revenues	0	0	0	0	0	0	0	0	-290662	0	290662	0
22. Domestically sold natural gas revenues	2317	500	3468	2827	26383	30860	4213	-11515	-597429	-49941	39708	688287
23. Exported natural gas revenues	2103	454	3148	2582	23946	32196	3824	3618	-736122	-63584	36057	818572
24. Sales of Crown leases	2217	478	3319	2723	25245	32560	2734	-39177	-313470	-21362	36716	400392
25. Other oil and gas revenues	449	97	673	550	5117	6485	361	-6647	-105650	-5317	7247	123271
26. Minerals—iron	-14609	95	662	543	-5890	2388	804	761	1799	1937	-18395	30585
27. Minerals—uranium	694	150	1040	853	7908	-5477	1263	-7098	2827	3404	11908	24403
28. Minerals—asbestos	-343	42	290	238	-3682	2970	353	334	790	26	-3102	7353
29. Minerals—coal	817	176	-6749	-7	9301	12505	1485	-643	-14758	-22648	5023	55764
30. Residual minerals	999	372	1992	-827	10731	-4316	-3159	2278	6757	-5534	10108	66621
31. Potash revenues	1051	227	1574	1291	11971	16096	1912	-35131	4279	5153	18026	36940
32. Water power rentals	-5327	1443	9001	5597	-53337	65188	-8133	9174	25658	-12893	-50756	252329
33. Insurance premium revenues	3777	642	3457	2269	-8190	2218	2557	4567	-5270	-1152	4512	331281
34. Payroll taxes	13423	3188	12316	13279	40925	-50736	7162	13081	-11740	-10432	90293	1392623
35. Provincial/local property tax revenue	91627	18187	107243	87373	389970	-224498	16602	-15713	-389814	-166362	711002	12213205
36. Lottery revenues	3549	558	2830	3132	11146	-9690	1059	132	-2020	-2647	22274	377124
37. Miscellaneous provincial/local revenues	44580	9638	45478	40613	185002	-115136	24415	1958	-220497	-96240	349726	5354286
TOTAL	488568	112924	541852	476219	2268808	-767700	295340	-493013	-6406273	-1303435	4183711	63606777
Transitional guarantees	464235	117971	571976	488230	2757572	-	440581	-	-	-	-	-
Equalization payments	488568	117971	571976	488230	2757572	-	440581	-	-	-	4864898	-

SOURCE: Department of Finance (1983, Summary Tables 2 and 4).

Equalization payments

guarantee levels are *higher* than the guarantee levels that appear in Table 12.7. This is so because more recent estimates are now available for the equalization flows in row 1 of Table 12.7. These new data also date from October 1983 and they represent the seventh estimate of equalization for 1981-82. Basically, the latest estimates reveal a higher level of 1981-82 equalization for all provinces but Newfoundland.¹ Following the logic of Table 12.7, this will result in higher transitional-guarantee levels.

The final row of Table 12A.2 presents the most recent estimates of equalization flows. *For all provinces except Newfoundland, equalization flows for 1982-83 equal the transitional guarantees*, yielding an aggregate federal payment to these provinces of \$4,865 million. Newfoundland's formula-generated payment is only some \$24 million above its transitional guarantee. This is *less* than the gain in equalization to Newfoundland from altering the water power rentals tax (discussed in the text above). Thus, without this tax-base change, let alone the modifications to mineral revenues, *Newfoundland would also qualify for the transitional guarantee*.

If the level of economic activity picks up, it is likely that some of these provinces will have formula-generated payments that exceed the transitional-guarantee levels. However, preliminary estimates for 1983-84 indicate that the five provinces still continue to qualify for the guarantee.

In terms of individual revenue sources, a few comments are probably warranted.

1 From Table 12A.1, all of the tax base for revenue source 21 (one of the reclassified energy sources, 'mined' oil revenues) is located in Alberta. Since Alberta is not in the standard, the \$290 million of provincial revenues from this source will generate *zero* equalization, as of course is revealed in Table 12A.2. The only other revenue source whose entire base is situated in a single province is potash revenues (source 31). But since Saskatchewan is in the standard, potash revenues do generate equalization flows. (Note that New Brunswick too has begun producing potash.)

2 The reclassification of the energy revenues has had little effect on equalization flows. In the March 1982 estimates, which used the old classification, each dollar of energy revenue entering the formula

generated 6.9 cents of equalization. The corresponding figure in Tables 12A.2 is 7.7 cents per dollar.

3 Although the 1982 Fiscal Arrangements Act runs in terms of 33 revenue sources, the manner in which the regulations pursuant to the act defined the tax base for minerals (see Chapter 12) has resulted in there being five rather than one mineral category—sources 26 through 30. This is why there are 37 rather than 33 revenue sources in the new federal estimates for equalization. As noted in the text, Newfoundland was the province that requested this tax base modification. Compared with Table 12.4, where minerals are still classified as a single category and where this province's negative entitlement was \$24.2 million, the new classification in Table 12A.2 (categories 26 to 30) reduces this negative entitlement to \$12.2 million.

THE TAX BASES: A BRIEF DESCRIPTION

Table 12A.3 defines the tax bases for the revenue sources. These definitions have been supplied by the federal Department of Finance. The first point to note is that this table lists only 33 revenue sources, whereas Tables 12A.1 and 12A.2 list 37. Table 12A.3 corresponds to the *legislation*, whereas Tables 12A.1 and 12A.2 (also adopted from Department of Finance information in the same time frame) are geared to the *practice* of equalization. For example, the legislation indicates that there is only one category for mineral revenues, other than potash—revenue source 25 in Table 12A.3. However, as the description of the tax base in the table indicates, the fact of the matter is that five mineral categories are treated separately. Hence, in presenting equalization estimates the Department of Finance shows five categories for minerals (sources 26 through 30 in Table 12A.1). Presumably it will continue to do so. Much the same point applies to revenue source 17 in Table 12A.3. As the description of the tax base indicates, for calculation purposes this is presented as two separate categories (sources 17 and 18 of Tables 12A.1 and 12A.2).

While Table 12A.3 is self-explanatory, there are two further points that are of particular interest. The first of these relates to the final revenue source in the table, which incorporates the shared revenues from offshore minerals. As yet, this component has zero revenues. When offshore revenues do come on stream for the Atlantic Provinces

TABLE 12A.3
Summary of 33 revenue sources and revenue bases contained in the fiscal equalization program for 1982-83 to 1986-87

Revenue source	Revenue base
1. Personal income taxes.	Simulated yield in each province of the representative provincial personal income tax. This yield is determined through the Revenue Canada Personal Income Tax Microsimulation Model (PITAX), which is used to calculate for each federal personal income tax bracket the effective average rate of tax for the ten provinces in relation to federal basic tax. (The resulting rates reflect the various provincial tax credits, surtaxes, and tax cuts and the various features of the Quebec tax system.) The simulated yield is obtained for each province and each tax bracket by multiplying the average rate for a bracket by the portion of the province's federal basic tax falling within the bracket. The total simulated yields of the provinces are determined by summing their yields for each tax bracket, and by adjusting the resulting totals to take account of differences among provinces in the proportion of total tax returns assessed as of the cutoff date for purposes of inclusion in the tax model.
2. Revenues from business income: (a) corporation income tax; (b) remittances of provincial government business enterprises other than liquor commissions, lotteries, and the B.C. Petroleum Corporation; (c) shared revenues under the Public Utilities Income Transfer Act.	Private business profits before losses (national accounts total, distributed by province on the basis of how corporation taxable income is allocated) plus provincial government business enterprise profits of profit-making corporations other than liquor commissions, lottery enterprises, and B.C. Petroleum Corporation (distributed by province on a national accounts basis). Corporation taxable income excludes estimated income arising from the nonexpensing of provincial levies on oil and on gas. The latter equals oil and gas royalties and other special levies on oil and gas to the extent that they exceed the federal 25 per cent resource allowance in respect of oil and gas. There is a special reduced weight for that portion of corporation taxable income which is eligible for the small business tax rate in order to take account of the lower rate that is typically imposed by provinces on such income.
3. Tax on corporation capital.	Value of those elements of corporation capital that are typically included in the base of taxes on capital by those provinces which levy such a tax. The tax base generally includes equity capital, various reserves, long-term debt, and some short-term debt. Equity capital consists of the paid-up value of common and preferred shares, retained earnings, contributed surplus, and other surplus. Reserves include most reserves that are not deductible for income tax purposes. Debt includes all secured debt, all debt to other corporations, and debt to shareholders. Certain adjustments are made in respect of accumulated capital consumption allowances and investment in other corporations. Banks and trust and loan companies are subject to special treatment in the tax base because these institutions are taxed by the provinces in a manner which differs from that which is applied to other corporations. Accordingly, the portion of the tax base for banks and trust and loan companies is limited to equity capital, but this portion of the base is given a special weight of 2.5, which reflects the higher rate of tax typically applied to these institutions by the provinces.
4. General and miscellaneous sales taxes.	Value of retail sales in the province (excluding food, children's clothing and footwear, tobacco, and motive fuel), plus cost, net of provincial sales tax, of materials used in construction, plus capital and repair expenditures for investment in place for machinery and equipment (excluding agriculture and fishing), plus sales of hotel, motel, tourist court, telephone, theatre, and cablevision services, plus receipts of restaurants, caterers, and taverns.
5. Tobacco taxes.	Number of cigarettes (or equivalent re cigars and tobacco) sold in each province.
6. Gasoline taxes, including aviation fuel.	Number of litres of gasoline sold in province with differential weights for gasoline sold for: (i) road use by nonfarm vehicles, (ii) road use by farm vehicles, and (iii) use by aircraft—with the different weights reflecting the average levels of taxation typically imposed by the ten provinces on each category for the calendar year.

TABLE 12A.3 (continued)

Revenue source	Revenue base
7. Diesel fuel taxes, including railway fuel.	Number of litres of diesel fuel sold in province with differential weights for diesel fuel sold for: (i) road use by nonfarm vehicles, (ii) road use by farm vehicles, and (iii) use by railway locomotives—with the different weights reflecting the average level of taxation typically imposed by the ten provinces on each category for the calendar year.
8. Motor vehicle licence revenue, noncommercial.	Total number of passenger vehicle registrations in the province, with motorcycles and mopeds given a commercial weighting of 0.40.
9. Motor vehicle licence revenue, commercial.	Total value of sales of commercial vehicles in the province for the current and previous 5 years in constant dollars.
10. Alcohol—spirits.	Volume of spirits sold in the province.
11. Alcohol—wine.	Volume of wine sold in the province.
12. Alcohol—beer.	Volume of beer sold in the province.
13. Hospital and medical care insurance.	Estimated number of persons in respect of whom premiums would be levied in a province on the basis of the typical tax structure in those provinces that levy premiums. Estimate based upon the number of federal income tax returns filed by persons under the age of 65 resident in the province with taxable income large enough for premium to apply. Separate taxable income thresholds established for persons taxed as married and single and for persons within each of these two categories that are typically eligible for 25, 50, and 75 per cent exemptions from premiums in the premium-levying provinces.
14. Succession duties and gift taxes.	Estimate, from federal income tax returns, of the total income of 'high-income persons' in each province with special high weights for persons 65 and over in order to reflect their relatively high mortality rates. 'High income persons' defined as those having an income of \$90,000 or over—based upon the 'total income' from federal income tax returns, adjusted to include capital gains in full and to exclude the gross-up of dividend income.
15. Race track taxes.	Amounts wagered in the province at pari-mutual tracks on harness and running horse races.
16. Forestry revenues.	Value added for the forest industry from Crown lands in the province.
17. Conventional new oil revenues, including conventional NORP oil. (Consists mainly of royalties. Corresponds to revenue sources 17 and 18 in Table 12.A.1.)	Value of production of conventional new oil within the province from Crown and freehold lands. Separate determination made for conventional NORP oil (which is effectively treated as a separate revenue source) in order to reflect the relatively high rate of taxation which is typically imposed on this category of conventional new oil. A special adjustment is made to the tax base in respect of freehold production to reflect the generally lower rates of tax applied to such production.

TABLE 12A.3 (continued)

Revenue source	Revenue base
18. Conventional old oil revenues. (Consists mainly of royalties. Source 19 in Table 12A.1.)	Value of production of conventional old oil within the province from Crown and freehold lands. A special adjustment is made to the tax base in respect of freehold production to reflect the generally lower rates of tax applied to such production.
19. Heavy oil, including NORP oil, conventional new oil, and conventional old oil but excluding Cold Lake production. (Consists mainly of royalties and of federal revenues from the oil export charge that are shared with provinces. Source 20 in Table 12A.1.)	Value of production of heavy oil within the province from Crown and freehold lands. Heavy oil defined as NORP oil, conventional new oil, and conventional old oil having a density of 935 kg/m ³ or more. However, it excludes Cold Lake production. A special adjustment is made to the tax base in respect of freehold production to reflect the generally lower rates of tax applied to such production.
20. Mined oil, including synthetic oil produced from oil sands (tar sands), and heavy oil produced at Cold Lake, Alberta. (Source 21 in Table 12A.1.)	Value of production of synthetic petroleum and Cold Lake heavy oil within the province from Crown and freehold lands. (Cold Lake heavy oil is included in the tax base because it is exceptionally heavy and subject to a special royalty akin to that for synthetic oil.)
21. Domestic natural gas, including pentanes, propanes, ethanes, butanes, and elemental sulphur. (Consists mainly of royalties. Source 22 in Table 12A.1.)	Volume of production within the province from Crown and freehold lands for domestic use.
22. Export natural gas. (Consists mainly of royalties and remittances to the B.C. government by the B.C. Petroleum Corporation. Source 23 in Table 12A.1.)	Volume of production within the province from Crown and freehold lands for export.
23. Sale of Crown leases of oil and natural gas lands. (Source 24 in Table 12A.1.)	Actual revenues of the province from this revenue source in the fiscal year.
24. Other oil and natural gas revenues. (Source 25 in Table 12A.1.)	Volume of production of oil and natural gas from Crown and freehold lands in the province, with the two components combined on the basis of their energy equivalent values, i.e., 1,033 cubic meters of natural gas equalling 1 metre of cubic oil. (Natural gas volumes are determined with respect of unprocessed gas in order to take account of natural gas liquids.)
25. Metallic and nonmetallic minerals other than potash. (Sources 26 through 30 in Table 12A.1.)	Value of production of minerals in the province—with separate determinations for 5 categories of mineral: (a) iron, (b) uranium, (c) asbestos, (d) coal, and (e) residual minerals. Each of these sources is treated as if it were a separate revenue source. The residual category excludes oil, natural gas, elemental sulphur, and potash because revenues from these minerals are equalized under other revenue sources. It also excludes clay products because these are normally assigned to the manufacturing sector. Structural materials other than clay products are included at a reduced weight because of the relatively low resource rents associated with them.

TABLE 12A.3 (continued)

Revenue source	Revenue base
26. Potash. (Includes royalties, but not remittances to the Saskatchewan government by the Saskatchewan Potash Corporation. Source 31 in Table 12A.1.)	Value added by the potash industry in the province.
27. Water power rentals. (Source 32 in Table 12A.1.)	Number of kilowatt hours of electricity generated in the province from publicly and privately owned hydro sources. The tax bases for Newfoundland and Quebec are determined in a special manner by means of two steps. In the first step a combined tax base for Newfoundland and Quebec is determined on the basis of the number of kilowatt hours of electricity generated in the two provinces from publicly and privately owned sources. In the second step the total tax base for Newfoundland and Quebec determined in the first step is allocated between the two provinces in accordance with their relative shares of gross revenues from the sale of all electricity generated within the two provinces by hydro sources.
28. Insurance premium taxes. (Source 33 in Table 12A.1.)	Total value of insurance premiums for property and casualty insurance and for life insurance, issued by federally or provincially registered corporations, plus the value of premiums, contributions, and dues of fraternal benefit societies, minus: (i) the value of dividends paid to policy holders and (ii) marine insurance premiums.
29. Payroll taxes. (Source 34 in Table 12A.1.)	Wage and salaries portion of personal income in the province, plus military pay and allowances, but excluding supplementary labour income.
30. Property taxes. Includes taxes levied by municipalities, school authorities, and provinces. (Source 35 in Table 12A.1.)	Composite base with separate components for the building and land portions of the real property tax base: <i>Building Component</i> (70 per cent of total base for 10 provinces as a whole) Two subcomponents with equal weight for the 10 provinces as a whole: (i) value of residential net capital stock in the province, measured in constant 1971 dollars as of the end of the calendar year preceding the fiscal year; and (ii) value of that portion of nonresidential net capital stock in the province consisting of building construction in all industries other than local government, universities, hospitals, churches, and other institutions, measured in constant 1971 dollars as of the end of the calendar year preceding the fiscal year. <i>Land Component</i> (30 per cent of total base for 10 provinces as a whole) Net provincial income at factor cost for the calendar year ending in the preceding fiscal year and for the four preceding calendar years in constant dollars. The net provincial income at factor cost for each year is adjusted for the federal tax-transfer system. This is done by adding federal transfers to persons in each province and by subtracting a portion of federal direct tax withdrawals from taxpayers in each province. The portion of tax withdrawals that is subtracted is established in such a manner that for the ten provinces the total deductions will exactly equal the amount added in respect of transfer payments.

TABLE 12A.3 (continued)

Revenue source	Revenue base
31. Lotteries (Source 36 in Table 12A.1.)	Personal income excluding: (i) value of change in farm inventory; (ii) provincial-local transfers to persons; and (iii) federal direct tax withdrawals, consisting of federal income tax on persons (adjusted in the case of Quebec to add back the value of the 16½ point abatement) plus employer and employee contributions to unemployment insurance, the CPP, and the QPP. Composite tax base consisting of a weighted average of the tax bases for all revenue sources other than those revenue sources relating specifically to natural resource revenues.
32. Other taxes and revenues from own sources. (Miscellaneous revenues from sources such as land transfer taxes, taxes on sales of liquid petroleum gases, crop insurance premiums, fish and game licences, provincial revenues from concessions and franchises, provincial revenues from licences and permits not elsewhere specified, provincial and local government revenues from sales of goods and services, provincial revenues from fines, etc. Source 37 in Table 12A.1.)	
33. Federal revenues from taxation or natural resources levies, not elsewhere specified, that are shared with provinces on a point-of-origin basis: (a) shared tax on the payout of undistributed corporate surplus; (b) shared revenues from offshore minerals.	Actual revenues of the province from each such source in the fiscal year.

NOTES: Revenues are measured on a fiscal year basis for all revenue sources. Revenue bases are usually measured on a calendar year basis—using the calendar year ending in the fiscal year in which the revenues are derived. A very high proportion of all data inputs for final determinations of equalization entitlements are supplied by the Chief Statistician of Statistics Canada.

SOURCE: Department of Finance.

they will apparently lose the *entire* amount of these revenues in equalization, since the base in the five representative provinces will be zero (except perhaps for British Columbia).

Second, the tax base for revenue source 32 (essentially miscellaneous provincial/local revenues) is intriguing, to say the least. It is a weighted average of the tax bases for all revenue sources other than those related to natural resource revenues. This is essentially the tax base $\bar{D}_j$, which played a major role in the Quebec proposal discussed in the appendix to Chapter 11.

NOTES

- 1 For the interested reader, the most recent estimates of 1981-82 equalization are (in \$ millions): Newfoundland, 427; Prince Edward Island, 107; Nova Scotia, 526; New Brunswick, 445; Quebec, 2,470; Manitoba, 400.

13

RFPS: an evaluation

Barring unforeseen action on the part of the federal government, the RFPS program will be in place for the five-year period 1982-87. The purpose of this chapter is to cast both a retrospective and prospective eye on the RFPS approach. How does it fare in terms of addressing the range of problems associated with the old RNAS approach? What new problems is the RFPS likely to generate? How does the RFPS stack up in terms of the underlying theory of equalization and, in particular, in terms of the manner in which it handles resource rents? These are the types of issues addressed below.

The evaluation begins by focusing on the 'politics' of equalization. The old formula was reeling under a set of increasingly arbitrary restrictions, which were in some measure undermining the public's acceptance of equalization. In this respect, the RFPS formula does, on the surface at least, appear to fare well. However, scratching the surface a bit reveals that the RFPS ushers in an entirely new set of concerns. The second part of the assessment evaluates the RFPS in the context of the theory of equalization. The final section assesses the RFPS in terms of the series of long-standing concerns dealt with in Chapter 5, such as gross versus net revenues and moral hazard.

THE POLITICS OF EQUALIZATION

Advantages of the RFPS

In one fell swoop, as it were, the RFPS eliminates all or most of the arbitrary restrictions associated with the previous formula. Specifically:

1 *Comprehensive revenue source coverage.* The move to include local or municipal revenue sources in the formula means that virtually all provincial and local revenues are now eligible for equalization. It would appear that the only major revenue category not included is the interest or investment income of provincial governments from such things as heritage funds. However, this aside (and ignoring those potential revenues transferred to the public in the form of reduced electricity prices, etc.), the revenue coverage is comprehensive. Interestingly enough, in this sense the RFPS is now fully in tune with the Rowell-Sirois Commission's National Adjustment Grants, which were to have been determined on the basis of the *combined* revenues of provincial and local authorities. The perennial requests by certain provinces for an extension of coverage would now appear to have been met.

2 *Identical treatment of all revenue categories.* Under the RFPS, 100 per cent of all revenue sources are eligible to enter the equalization formula. In this sense too the new program is comprehensive.

3 *Removal of the personal income override.* Under the RFPS, Ontario continues to be ineligible to receive equalization. However, this results from the internal workings of the program and not from an arbitrary restriction; that is, the personal income override, which generated so much concern, is now gone.

4 *The removal of other arbitrary measures.* There is no longer a limit on the amount of equalization that can arise from resource revenues: the 'resource cap' associated with the old formula is also gone. Moreover, all resource revenues now enter the program on an equal footing, so discrimination in this regard has also been eliminated.

5 *Energy revenues will no longer drive the formula.* Because the equalization generated by energy revenues has been substantially reduced by the move to a standard that excludes Alberta, the system will no longer be driven by energy revenues. This was probably a goal of the framers of the new program. Under the RNAS, Nova Scotia's energy-related equalization would rise proportionally with any upsurge in Alberta's energy royalties, despite the fact that it was not obvious that the former province's cost of providing public services had correspondingly increased. Viewed in this way, the reduction in the sensitivity of equalization flows to the revenue fortunes of the

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energy-rich provinces may be seen as an advantage of the RFPS. However, as will be shown below, there are also some important disadvantages associated with the manner in which the RFPS handles energy rents.

Thus, the RFPS can be viewed as a stroke of political genius. The features enumerated above transform equalization into a universal and comprehensive system. However, in many ways the RFPS system is too ingenious since it also generates its own set of problems, not all of which were associated with the previous formula.

Disadvantages of the RFPS

1 *The GNP cap.* While the resource cap is gone, it has been replaced with an overall limit, based on the rate of GNP growth, on how rapidly equalization payments can increase. This does serve to offset, and in a rather substantial way, the other moves toward comprehensiveness and toward freeing equalization from arbitrary constraints. Moreover, at the time of the legislation introducing the RFPS, the expectation was that the GNP cap would become binding. If the cap does become binding, the net result will be, in effect, the block-funding alternative elaborated on in Chapter 6; that is, overall equalization flows will be dictated not by the equalization formula but by the operations of the GNP cap. The role of the equalization formula will be to allocate this 'externally determined' total equalization flow among the recipient provinces. In the view of some students of equalization, this restriction would qualify as one of the drawbacks of the new formula.

A second effect of the GNP cap could prove even more troublesome. If the cap does become binding, rates of equalization growth will differ markedly from one recipient province to another. Specifically, rates of equalization growth for the four Atlantic Provinces will probably be in excess of GNP growth as measured from the 1982-83 base while the equalization flows to Quebec and particularly Manitoba will probably be much less than GNP growth. Politically, how does one roll back Manitoba's payments when this province already feels that it has been dealt a severe blow by the switch from RNAS to RFPS? As Manitoba's premier, Howard Pawley, remarked in his notes for the February 1983 First Ministers' Conference:

it seems inconceivable that, at the same time as we are moving to that principle [equalization] in the Constitution, the Federal Government is also moving to set aside—without adequate understanding of the consequences—the very formula which has given effect to that principle for the last fifteen years. (Pawley 1982, 11)

Manitoba's situation is also relevant to another potential defect of the new formula, the transitional guarantees. This is particularly the case since the reality of the situation is that the GNP cap will not be binding; rather, the provisions on the lower bound of payments will come into play.

2 *The transitional guarantees.* Whenever there is a marked shift in a major program, one can expect the introduction of a set of transitional arrangements designed to ease the adjustment from one system to another. The fact that five out of the six recipient provinces are expected to fall back on the guarantee level for 1982-83 payments, while no doubt embarrassing, can at least be chalked up to the recession. Had the RNAS program remained in force for 1982-83, equalization estimates would probably have decreased even more between March 1982 and October 1983 than they have, given the dramatic fall in energy revenues over that period and the weight that energy carried in the RNAS formulation.

Nonetheless, the transitional guarantees do present some longer-term concerns. Given that the formula-generated RFPS payments to Manitoba are so low relative to Manitoba's entitlements under the old scheme, it is possible, even likely, that this province will suffer a year-to-year decline in equalization payments once the three-year period of transitional guarantees terminates. What happens then? The provision for a minimum level of payments (see Chapter 11), as distinct from the transitional guarantees, will provide some protection, but the floor will not prevent Manitoba's equalization entitlements from falling. The question still remains: Will we allow Manitoba's payments to fall in absolute terms in 1985-86 compared with 1984-85, while equalization for the rest of recipient provinces continues to increase? Not likely. To put the matter differently, one can confidently predict some extension of the transitional (permanent!) guarantees in this circumstance.

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A related point is the following. The discussion of the advantages of the RFPS emphasized the formula's universality, its comprehensiveness, and its removal of arbitrary restrictions. However, for 1982-83, the *RFPS formula as such is irrelevant to the determination of equalization payments, except for Newfoundland: the transitional guarantees call the tune*. One can of course view these guarantees as part of the RFPS formula. But the notion that equalization has been put on a more 'acceptable' basis is essentially empty if the payments themselves are determined more by the arbitrary constraints than by the formula. At the very best, the RFPS system is off to a questionable start.

3 *The new standard*. Equalizing to a five-province standard rather than to a national-average standard was the alternative that permitted the move toward greater comprehensiveness. With Alberta out of the standard, 100 per cent of energy revenues could now be brought into the formula without fear that equalization would mushroom. Indeed, the substantial reduction in energy-related equalization under the RFPS relative to the RNAS is what allowed property taxes for local purposes to be incorporated in the list of covered revenue sources. However, this advantage of the switch from a national-average to a five-province standard is offset by some genuine concerns.

Principal among these sources of concern is the circumstance that the level of equalization payments is now a function of whether changes in economic activity take place in provinces that are in or that are out of the standard. Under the old RNAS version, a movement of population from Quebec to another province or a corporate-headquarters shift out of Quebec had a determinable effect on equalization *irrespective of the province in which these factors relocated*. Not so under the RFPS, as the analysis in the last chapter demonstrated. The problem is not only that the amount of equalization can vary with interprovincial shifts in economic activity, but also that the *direction* of the variation (upward or downward) in equalization flows can vary with the provinces involved. There are already enough regional strains on our federation without the equalization program's contributing further incentives for some provinces not to be indifferent to development prospects in other provinces. It might be argued that this may not be a serious problem

in practice, at least relative to some of the other problems created by the new standard. Nevertheless, the fact that Newfoundland's level of equalization depends in part on whether a firm leaving Quebec relocates in Ontario or Alberta surely represents a backward step in the evolution of the Canadian system of equalization payments.

4 *Resources and the RFPS.* Under the RNAS, with 50 per cent of nonrenewable-resource revenues but 100 per cent of renewable-resource revenues entering the formula, there was a built-in incentive for 'have-not' provinces to favour the development of their nonrenewable, relative to their renewable, resources. This differential treatment has been eliminated under the RFPS, but some other disincentives, probably more serious, have been built into the new system. As is demonstrated in the technical appendix to this study, if a 'have-not' province not included in the standard (i.e., any of the Atlantic Provinces) develops its resource bases, and if its tax rate for these bases is identical to the national average tax rate, *its equalization loss will exactly offset its own-revenue gain* (i.e., its *total* revenues will remain unchanged). If its tax rate is lower, it will *lose* revenues overall. This assumes, moreover, that tax bases are defined in terms of their rent potential. Suppose that the tax base is defined in terms of units of output and, further, that the rent extractable from a given unit of output is less in the Atlantic region than it is in the rest of Canada: in this case, resource development in an Atlantic province will *decrease* the province's *overall* revenues. And this revenue decrease will not include the revenue 'losses' associated with any resource development expenditures—the money that the province has spent (on roads, communications, etc.) in order to develop the tax base. In short, the RFPS creates a very serious disincentive to resource development in 'have-not' provinces.

The *comparative* nature of this disincentive across provinces is also of concern. For a 'have-not' province inside the standard (such as Quebec or Manitoba) the revenue-loss offset will be smaller (i.e., less than 100 per cent) than it will be for a 'have-not' province outside the standard. However, for the four 'have' provinces, *there is no revenue offset*. It is true that unless one were to move to a revenue-sharing pool it would be difficult to have the same 'tax rates' apply to resource development across all provinces. But the *range* under the RFPS is surely inappropriate—zero own-revenue offset for 'have' provinces

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and 100 per cent own-revenue offset for nonstandard, 'have-not' provinces.

As long as *gross revenues* (i.e., no deduction for expenses to develop the resources) continue to enter the formula, it seems to me that the Saskatchewan proposal—RNAS-20 (see the appendix to Chapter 11)—or some reasonable facsimile is preferable to RFPS insofar as it incorporates reasonable incentives for resource development. Indeed, the 50 per cent eligibility for resource revenues under the RNAS was also probably preferable to the RFPS as far as these incentives are concerned.

As a final and related comment, it is probably a safe bet that concern about the definition of tax bases under the RFPS will grow considerably, given that more-than-confiscatory equalization reductions can arise under inappropriately defined bases for the various revenue sources.

RFPS AND THE THEORY OF EQUALIZATION

It is useful to distinguish between the two basic approaches to equalization. The traditional approach falls back on the Rowell-Sirois or, more recently, the constitutional rationale: equalization payments are designed to allow all provinces to provide their citizens with some basic level of public services without resort to unduly high rates of taxation. The other approach—let us call it the efficiency approach—focuses on differential net fiscal benefits across provinces. It would appear to be the case that the new RFPS system fits neatly into the former conception of equalization: indeed, it can be argued that it represents a further significant shift away from the efficiency rationale for equalization.

First of all, the RFPS system rejects the notion of an interprovincial revenue-sharing pool, which would be consistent with the efficiency rationale. Second, a major rationale underlying the new arrangements was the exclusion of Ontario from being a recipient province. This rationale was crystal clear with respect to Ottawa's initial proposal, the Ontario standard, and it remains rather obvious under the RFPS, which is in effect an extension or broadening of the Ontario standard. Yet all of the existing alternative equalization options that focus on equalizing NFBs across provinces generate positive entitlements for Ontario. In regard to Ontario, however, the

RFPS does not really differ from the RNAS, except in that it excludes Ontario by the internal workings of the formula itself rather than by an arbitrary restriction.

But the RFPS can be viewed as going farther than did the RNAS in accepting the concept of the basic level of services as the goal of equalization. The exclusion of Alberta on the high side and the four Atlantic Provinces on the low side (with roughly equivalent population totals on each side) can be seen as an argument to the effect that the standard ought not to be determined by Alberta's runaway energy revenues. A standard based on the fiscal positions of the five selected provinces is more representative of the 'basic levels of public services', as it were, than would be a standard that included Alberta or was national.

To phrase the matter differently, the resource revenues that are the major source of differential NFBs across provinces have been downplayed considerably in the new formula. This is a move away from the efficiency approach.

It is instructive to carry on with this interpretation of the downplaying of resource revenues as a move toward an expenditure or basic-public-services approach. The argument might go as follows. If the presence of resource revenues has allowed Alberta to have no sales tax and a low personal income tax rate, should not equalization generated from resources be equivalent to what would have been generated had Alberta, instead, imposed a sales tax and raised its personal income tax rate?

Before one dismisses this notion outright, it is critical to recognize *that this is exactly what the RFPS does*. Calculations in the previous chapter indicated that under the RFPS each dollar of resource revenues that enters the formula generates about 7 cents in equalization. Comparable figures for other major tax sources (from Table 12.4) are personal income taxes, 7.9 cents; business income revenues, 8 cents; retail sales taxes, 6.1 cents; property taxes, 5.8 cents; and so on.

Lest one believe that the general correspondence between these figures is mere happenstance, it is appropriate to note that the two provincial counterproposals advanced during the period leading up to the adoption of the RFPS also embodied this notion of equalizing resource rents in such a manner that they would generate equalization at roughly the same rate per dollar as would the other

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revenue categories. The Saskatchewan proposal, referred to as RNAS-20 because it would be the RNAS formula with 20 per cent of resource revenues eligible for equalization, would generate essentially the same amount of total resource-related equalization as would the RFPS. This is clear from Table 12.6. Under the RFPS, 1982-83 resource-related equalization is \$768 million. Under the RNAS it would be \$1,903 million. The latter figure effectively embodies 50 per cent equalization of resource revenues: 20 per cent would yield \$761 million, essentially identical to the \$768 million under RFPS.

(At this point a parenthetical comment is appropriate. Both the RFPS and RNAS-20 yield essentially equal energy-related equalization. However, in terms of embodying appropriate and roughly equal incentives for resource development, RNAS-20 has it all over the RFPS. Suppose that Nova Scotia develops a resource base that in per capita terms is 5 per cent above the RFPS standard. The province's negative equalization will be calculated by applying this 5 per cent to *all* provincial revenues for this source. Under RNAS-20, the fiscal deficiency—which would likely be less than 5 per cent, since it would be calculated relative to the national-average rather than the five-province base—would apply to only 20 per cent of all revenues. In other words, the RNAS-20 would be far more sympathetic in terms of its effect on the incentives for resource development by 'have-not' provinces.)

To continue with the main thread of the argument, the Quebec proposal is in some ways even more explicit than RNAS-20 in ensuring that resource treatment leads to the same equalization per dollar of revenues entering the formula for resource revenues as for other categories. As is clear in the appendix to Chapter 11, the fiscal deficiency measures that are to be applied against the bulk of resource revenues are *defined as an average of the fiscal deficiencies from the nonenergy revenue sources*.

It is, of course, possible that the Quebec and Saskatchewan proposals reflect 'second-best' positions in the sense that these provinces tailored their views to those precepts that Ottawa might be expected to accept. It is more likely, however, that they represent a rejection of the NFB approach to equalization and the acceptance of an expenditures or 'basic level of services' ideal. In any event, there appears to be a widening gulf between the economists' conception of

equalization and the conception that emanates from the various governments.

One caveat is in order. It might be possible to reconcile some aspects of the RFPS with the economic arguments for equalization. Specifically, under the notion of narrow-based horizontal equity the provinces are deemed to have proprietary (constitutional) rights over their resources and, hence, resource revenues should not be subject to much equalization. To make this argument consistent with the RFPS one would have to assume that broad-based horizontal equity should apply to all nonresource revenues and narrow-based horizontal equity to resource revenues.

MISCELLANEOUS FEATURES OF THE RFPS

This final section relating to the assessment of the RFPS briefly reviews the manner in which the new program handles some of the enduring problems that were highlighted in Chapter 5. In general, the RFPS does little more to address these issues than did the RNAS.

1 *Expenditure needs.* Expenditure needs are not formally a part of the RFPS. It is possible to argue, as has been done above, that the exclusion of Alberta from the standard marks a shift away from equalizing overall revenues and toward equalizing 'representative expenditures'. However, there is still no explicit account taken of expenditure needs—that is, the fact that it may take more dollars per capita in some provinces to provide the basic level of public services. More on this in the concluding chapter.

2 *Moral hazard.* The extension of coverage to include all local revenues has eliminated one avenue whereby provinces could influence their levels of equalization: it is no longer possible to shift revenues between those revenue sources that enter the formula and those that do not. On the other hand, the new formula has encouraged strategic behaviour in the resource sector. To the extent that they are able, 'have-not' provinces have an incentive to collect revenues from new resource developments in terms of, say, business-income revenues (via corporate profits taxes or profits of provincial government enterprises) rather than resource royalties or rents. This is so because the equalization 'tax-back' rate in the latter is likely to be at least 100 per cent. Thus it may be possible for a province to

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increase its overall revenues by having resource revenues accumulate in a revenue category for which the province is 'poor' relative to the standard.

In Chapter 5, attention was directed to the Quebec liquor strike and Quebec's ability to collect substantial equalization because, for the duration of the strike, its tax base for this category was reduced to zero. This appeared to be a loophole that would be eliminated under the new arrangements. While there was considerable discussion of the issue, the loophole remains.

3 *Gross versus net revenues.* There would appear to be an excellent case for defining revenues eligible for equalization as *net* of those provincial expenditures that are required to generate these revenues. This problem was mitigated under the RNAS, which admitted only 50 per cent of most resource revenues to the formula. Under the RFPS, with full revenue eligibility, the problem has been magnified. This is just one other facet of the very unsatisfactory manner in which the RFPS handles resource revenues.

4 *Funding.* There has been no change in the funding of equalization. It is possible to argue that the system has become more equitable, since Ottawa now has access to more energy revenues. But energy revenues *per se* generate far smaller amounts of equalization now than they did under the RNAS.

However, the 'visibility' of any funding inequity has diminished substantially under the new formula. Ontario does not qualify for equalization now as it did under the RNAS, so it is much harder on political grounds to mount the sort of case for funding reform that the Ontario government has made in several of its recent budget papers.

This completes the description, analysis, and evaluation of Canada's new equalization program. The concluding chapter of the study attempts to place the new program in perspective and to suggest what changes the 1987 arrangements may bring.

PART VII
CONCLUSION

14

Conclusion

It is tempting at the conclusion of any study to draw together the various strands of the analysis in order to build a better mousetrap, as it were. Unfortunately, or perhaps fortunately, I do not believe that there is a single best approach to the design of Canada's equalization program. To put the matter differently, there are many rationales for equalization—economic, political, historical, and, now, constitutional—and no one version of equalization is likely to come out on top on all of these counts. And even if one did, there is no guarantee that five years hence it would continue to maintain its pre-eminence. This much is amply evident from the historical evolution of equalization. Moreover, the various references in the course of the study to the ways in which other federations handle equalization also lend support to the notion that there is no such thing as a universal approach to equalization: the West Germans have implemented the equivalent of an interprovincial revenue-sharing pool, the Australians have adopted a fiscal-need approach, and the Americans have no formal equalization system at all.

Thus Kenneth Wheare's dictum that 'there can be no final solution to the allocation of financial resources in a federal system', only 'adjustments and reallocations in the light of changing conditions' (Wheare 1964), certainly rings true. Indeed, it is difficult to make the case that the move from RNAS to RFPS was rooted in a particular theoretical mould. Rather, the rationale likely had to do with positive rather than normative criteria: the desire to treat all revenue sources in an identical manner, the belief that revenue coverage should be more comprehensive, the preference for excluding Ontario on the

basis of the formula itself, and the federal concern that equalization remain 'affordable' all combined to ensure that an approach akin to the ROS or the RFPS would emerge as the new program. In more general terms equalization can, and perhaps should, be viewed as an integral but nonetheless malleable component of the quinquennial process of re-striking the 'Confederation compromise'.

While there is considerable merit in this line of argument—which, if taken to its limit, would result in an evaluation based on what equalization *actually does* rather than what equalization *should do*—the preceding chapters do have some important normative implications relating to the role of equalization in the federation. However, before we focus on these implications, it is in keeping with the notion that equalization is responsive to the economic and political environment, as well as to underlying analytical principles, to isolate some of the factors that will likely affect the bargaining climate in 1987.

PROSPECTS FOR THE 1987 FEDERAL-PROVINCIAL CLIMATE

Throughout the 1970s and the early 1980s, concern about energy dominated the federal-provincial calendar, at least with respect to equalization. Chapters 2 and 5 reviewed in considerable detail the manner in which the equalization formula was modified in response to the shocks in domestic and world energy prices. Energy issues are not going to loom as large in 1987. For one thing, the NEP now gives the federal government a larger share of overall energy revenues. For another, the domestic price of energy is now much closer to the world price than it was when the 1982 arrangements were being negotiated. Finally, and probably most important, the RFPS formula is relatively immune to major swings in the energy revenues of the resource-rich provinces.

While the traditional interaction between resource rents and the equalization formula is likely to be far less significant the next time around, a *new* resource issue will probably come to the fore: the interaction between equalization and the resource revenues of 'have-not' (as distinct from 'have') provinces. For 'have-not' provinces that are not part of the five-province standard, the RFPS levies, at best, a 100 per cent tax on any increase in resource rents. What this implies is that any deal that Ottawa and Newfoundland might strike with

respect to offshore energy sharing would essentially be irrelevant, since Newfoundland's portion would be taxed away fully until the rent exceeded the province's equalization entitlement (whereupon the tax would fall to zero).¹ Everyone agrees that as provinces become richer their equalization should fall. But for political as well as economic reasons confiscatory taxes can, in general, never be implemented. Thus, the energy-related issue in the 1987 negotiations will be the manner in which the development prospects of 'have-not' provinces relate to the formula.

A second factor that could affect the 1987 climate is the role of the established programs. The federal decision in 1982 to withdraw from EPF the funding associated with the revenue guarantee constituted, in the eyes of many provinces, one of the most flagrant violations ever of co-operative federalism. There are also other ways in which Ottawa's recent concern with accountability and visibility could once again heighten federal-provincial tension. The provisions of the Canada Health Act that effectively reconditionalize parts of the established program funding could be carried farther afield. Moreover, the forthcoming report of the Macdonald Royal Commission is likely to make recommendations that will challenge the *status quo* with respect to both the division of powers and the federal-provincial institutional framework. This, too, could be a factor in the 1987 renegotiations.

A third and related factor that will likely influence the next set of negotiations is fiscal restraint, which will probably be the order of the day. There are two points to be made here. One is straightforward—namely, that the monies available for federal-provincial transfers will surely fall short of provincial demands. In times of overall restraint, the renegotiation of financial transfers is bound to be fraught with tension. The second point is more complex. Recall that during the 1982 renegotiations the federal government argued that it was bearing too much of the overall deficit in the system and that, as a result, established program funding should be reduced. Indeed, one of the arguments used by Helliwell and Scott in recommending their interprovincial revenue-sharing pool to the 1981 Parliamentary Task Force was that the fiscal 'surplus' was now located at the provincial level. Essentially, the underlying issue for the next set of negotiations is the following: which level of government will have the relative fiscal surplus in 1990? In other

words, which expenditure categories are likely to expand over the next ten years? How will the aging of the population affect the growth of health expenditures, for example? While this is a 'vertical balance' issue (to fall back on the terminology of Chapter 3), whereas equalization relates to 'horizontal balance', it is clear that the manner in which the system comes to grips with the former may have an important influence on the latter. A deterioration in vertical balance, from the provinces' point of view, might lead to an erosion of the heretofore general acceptability of a comprehensive equalization program designed to offset any horizontal imbalance.

Thus, while one cannot forecast the 1987 climate with any degree of certainty, the number of potentially contentious issues does seem sufficient to guarantee that the fiscal arrangements will, once again, be negotiated in a tension-ridden environment. I have some recommendations to offer regarding the bargaining process itself, but first I want to focus on what might be in store for the equalization program in 1987.

IMPLICATIONS FOR EQUALIZATION

Challenging the five-province standard

I suspect that high on the reform agenda will be a questioning of the new five-province standard. Concern will likely centre around two issues. The first relates to those theoretical features of the new program that lead to situations in which a change in a province's position can result in either an increase or a decrease in equalization, depending on whether the affected provinces are in or out of the standard. Even though the practical implications of some of these analytical features may on occasion not be very significant, the criticisms of these features will carry considerable weight because they represent characteristics that hitherto have not been, and presumably should not be, incorporated in an equalization program. The second issue relates to the 'nonrepresentative' nature of the new standard when it comes to resource rents. This issue will come to the fore when 'have-not' provinces begin to be assessed 100 per-cent-plus 'tax rates' on their increases in resource revenues.

However, the options for sorting this out next time around are likely to be limited by certain other features of the RFPS. For example, it is unlikely that any revenue sources will be dropped in

1987, given that the history of the representative tax approach between 1967 and 1982 was a gradual but sure movement toward increasing comprehensiveness of coverage, and that now virtually all provincial and local revenues enter the formula.

If these concerns are indeed uppermost in 1987, then the alternative with the inside track would appear to be RNAS-20, the Saskatchewan proposal. First of all, in terms of assessing fiscal deficiencies and excesses, it restores the national-average standard for *all* revenue categories. Second, even though only 20 per cent of resource revenues would be eligible for equalization, this 20 per cent eligibility would generate essentially the same aggregate energy-related equalization as does the RFPS. Unlike the RFPS, however, the RNAS-20 would provide ample incentive for resource development in 'have-not' provinces. Even though RNAS-20 would be a move away from conformity of treatment in terms of revenue eligibility, the 20 per cent provision can be defended in terms of the Boadway-Flatters-ECC analysis or the Parliamentary Task Force rationale. Third, comprehensiveness of coverage could be maintained under RNAS-20, in the sense that the existing range of revenue coverage could be continued with overall cost implications roughly similar to those for the RFPS. Finally, RNAS-20, like the RFPS, would exclude Ontario on the basis of the formula itself.

Ironically enough, the major drawback of the RNAS-20 is closely related to one of its benefits. With only 20 per cent of resources entering the formula, a province with overall per capita revenues above the national average level could continue to receive equalization. Saskatchewan might well fall into this category, and so might Quebec or an Atlantic province if hydro or offshore revenue were to mushroom. The 20 per cent eligibility would surely encourage resource development relative to the RFPS, but it could also lead to 'over-equalization' for some provinces. Nonetheless, the RNAS-20 is a viable option, the more so because it would lead to an equalization flow from energy (at least for 1982) almost identical in total to the flow arising from the RFPS.

Intriguingly, the introduction of RFPS has also made *macro formulas* far more viable for 1987 than they were in 1982. This occurs because the RFPS has characteristics that are quite close to those of a macro formula. Because the RFPS downplays energy to the point where the number of cents of equalization generated by each dollar of

energy revenues entering the formula is roughly equivalent to that generated by each dollar of the nonresource revenues, it would be a much smaller step to move from the RFPS to a macro approach than it would have been to move from the old RNAS formula to a macro formula. Such a move would still involve a major change in the analytical underpinnings of equalization, but in terms of both the total level of payments and the distribution across recipient provinces the transition would not be substantial.

The objection to a macro formula is similar to the objection to RNAS-20. A resource-rich province might still come out with a fiscal deficiency in terms of a single macro indicator. This is where a variant of the Quebec proposal has considerable appeal. Despite the proposal's outward complexity, the principles underlying it are quite straightforward. Essentially, it takes a representative-tax-system approach to a macro formula, confusing as this may appear at first blush. Thus the aggregate fiscal deficiency is defined as the average of a province's deficiencies and excesses across most of the nonresource revenues. This approach guarantees much more stability in the estimates of each province's fiscal deficiency or fiscal excess than would the use of, say, gross domestic product as the measure to define deficiencies and excesses. But where the Quebec proposal is really innovative is in its treatment of resource revenues. Basically, its purpose is to ensure that resource-rich provinces are not able to qualify for equalization. As was noted in the appendix to Chapter 11, there are one or two problems with the manner in which the proposal treats energy, but by and large a few selective alterations could probably minimize these problems.

Equalization and the economic rationale

In terms of what might be in store for 1987, I am much less optimistic about the chances of those approaches to equalization that have as their goal the equalization of NFBs across provinces. The Parliamentary Task Force was adamant that they not be considered. Moreover, the new constitutional provision relating to equalization can be interpreted as excluding an interprovincial revenue-sharing pool as an option for the formal equalization program. However, *in principle*, nothing precludes the provinces from mounting their own second tier for resources. Practice will likely be different.

What might and should be in the cards for 1987 is a more concerted effort to define resource bases in a more comprehensive manner. Considerable effort has already gone into the measurement of hydro rents and although the estimates vary considerably with the underlying methodology further research is desirable. A province should not be able to increase its equalization because it decides to pass on resource rents to consumers in the form of below-market prices rather than collect these rents in the form of provincial taxes or royalties. Presumably the requirement that resource bases be defined more appropriately could be part of the overall package that would be put in place to reduce the present confiscatory tax rates associated with resource development under the RFPS.

Equalization and fiscal need

Equalization based on fiscal need is, I think, preferable in principle to equalization that focuses only on the revenue side. However, the practical difficulties that would have to be sorted out in designing a 'representative expenditure system' are such that a fiscal need approach will probably not be viable for 1987.

There is, however, one aspect of the fiscal-need proposal outlined in Chapter 9 that is worthy of further consideration. This is the notion that the equalization program ought to be more closely integrated with the rest of the federal-provincial financial interface. Specifically, if the purpose of equalization is to ensure that all provinces have access to revenues sufficient to deliver reasonably comparable public services at reasonably comparable tax rates, then it should follow that if there are major changes in the funding of other programs (such as CAP or EPF) the equalization program should adjust accordingly. It would probably be much easier to incorporate this concept in a program that took explicit account of expenditures. The notion of equalization as an overarching program that takes account of the full range of provincial revenues (including federal-provincial transfers) and then guarantees to deliver an amount sufficient for provinces to meet their needs does, in my view, have considerable appeal.

In this context it is worth looking at what happened to Manitoba in the 1982 negotiations. Like the other provinces, Manitoba found its EPF transfers reduced by the withdrawal of the two tax points associated with the revenue guarantee. However, unlike the Atlantic

Provinces, for example, it also found that its equalization payments fell in absolute terms as a result of the switch to the RFPS. For a three-year period this fall will be cushioned somewhat by the transitional guarantees. I have no trouble accepting the fact that over time the economic position of certain provinces will change and that, as a result, their equalization flows should also change. But what happened between fiscal years 1981-82 and 1982-83 to justify a shift in equalization away from Manitoba and towards the Atlantic Provinces? The 'official' answer is, of course, that the RFPS generated the new numbers. Yet this is not an adequate answer in terms of *any* of the underlying rationales for equalization: why should Manitoba bear the costs of a formula designed to ensure that Ontario will not end up as a 'have-not' province? One can of course fall back on the argument, highlighted above, that equalization has now become just another program up for grabs in the quinquennial federal-provincial fiscal struggle. But it is precisely this high degree of politicization that is likely to erode the general acceptance that Canada's equalization program has hitherto enjoyed.

A second rationale for Manitoba's plight would run as follows. Under the RNAS there were really two 'standards' for equalization—one for provinces with per capita incomes below the national average level and another for provinces whose per capita incomes exceeded the national average level (i.e., the personal income override). As the 1982 negotiations drew near, it became clear to the federal government that in order to move back to a single standard and at the same time exclude Ontario from equalization the level up to which all provinces' revenues were to be brought would have to be *less* than the national average level. Indeed, it would have to be *less than the Ontario per capita average*. And not surprisingly, this is how it has worked out. From Table 4.6, the RFPS average tax base per capita is 91 per cent of the national average level and the comparable figure for Ontario is 94 per cent. Thus, from the vantage point of the new standard, a relatively 'rich' have-not province like Manitoba can be viewed as having received 'over-equalization' during the 1977-82 period. Clearly a more appropriate strategy, given that the standard was to be lowered, would have been to generate a gradual fall in equalization payments. To be sure, the transitional payments associated with the RFPS will cushion Manitoba's financial position. Nonetheless, the unexpected fall in the rate of growth of Manitoba's

equalization combined with an equivalent unexpected and dramatic fall in established programs financing has wrought havoc with Manitoba's budgetary process. Surely the role of equalization in the federation is not to generate unexpected windfall gains and losses across the provinces.

It is in this same light that one has to evaluate the latest equalization initiative—the agreement between Ottawa and Nova Scotia for sharing offshore revenues.

Equalization and the Nova Scotia deal

As was indicated in the postscript to Chapter 2, a deal has been struck between Nova Scotia and the federal government to shelter this province's offshore revenues from the impact of the equalization formula. The details of this legislation will not be reproduced here. However, it is important to highlight three features of the legislation in order to assess its implications for 1987:

- The legislation will override whatever equalization program happens to be in effect when the offshore revenues begin to flow in.
- The amount of revenue involved is likely to be substantial, since Nova Scotia is guaranteed *all* revenues from offshore (except the federal corporate income tax collections) until the province's fiscal capacity exceeds 110 per cent of the national average. (This 110 per cent figure will be adjusted upward by 2 percentage points for every 1 percentage point that Nova Scotia's unemployment rate exceeds the national average level.)
- The legislation effectively provides that Nova Scotia's equalization will be calculated by including only 10 per cent of offshore revenues in the formula in year one, 20 per cent in year two, and so on.

This is an incredible piece of legislation. *It will surely undermine the high degree of general acceptance hitherto accorded to equalization in the federation.* Other agreements of this type are sure to follow, and the net result will be that *equalization will cease to be formula-based and it could well degenerate into a program determined principally by political and paternalistic considerations.* The implications go well beyond this, however. The result of the 1982 fiscal arrangements was to pull back on established programs funding and to 'regionalize'

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equalization—that is, to shift equalization payments away from Manitoba and Quebec and toward the Atlantic region. This shift has in itself served to strain the overall relationship between vertical and horizontal balance in the federation. All of the four Atlantic Provinces *already* have access to overall revenues per capita (corrected for tax effort) in excess of those available to Manitoba, Quebec, and Ontario.² Consequently, to shelter a revenue increase in one of the Atlantic Provinces from the workings of the equalization program is to run the very serious risk of having equalization join the set of programs that generate regional tension rather than national unity. It seems to me that the way is now open for some province to take the overall equalization program (including the offshore deal) to the courts, on the grounds that it runs afoul of the new equalization provision of the constitution.

The Nova Scotia deal is troublesome on other grounds as well. Saskatchewan does not have access to *all* energy revenues (except the federal income tax) until it achieves a per capita fiscal capacity equal to 110 per cent of the national average. Why should Nova Scotia be different?

These concerns aside, the rationale for this offshore deal essentially derives from the characteristics of the RFPS, and indeed, the issue has been highlighted throughout the evaluation of the new equalization program: the RFPS incorporates a 100 per-cent-plus offset for revenues arising from resource developments in 'have-not' provinces. The offset becomes even greater to the extent that provinces have to spend money to develop the resource base. As was noted earlier, it is virtually impossible, politically, to collect such confiscatory taxes. Largely for this reason, the RFPS program incorporates minimum-guarantee provisions that prevent equalization from falling too much from one year to the next (see Chapter 11 for the details of these provisions). However, under the provisions of the offshore pact, Nova Scotia's equalization could continue to *rise* from one year to the next (as was pointed out in the postscript to Chapter 2).

It seems to me that the Nova Scotia-Ottawa deal increases the urgency for redesigning the equalization program. Assuming that this offshore pact will override the existing equalization program, emphasis must be put on ensuring that the implications of such an agreement are minimized. Once again, this would call for a move

toward a program such as RNAS-20, which would minimize the equalization offset of resource developments.

To maintain a program such as the RFPS, with its confiscatory taxes, and to strike up arbitrary deals with selected provinces to render the formula inoperative for particular revenue sources will surely undermine the historical role and conception of equalization within the federation.

SOME NOTES ON THE BARGAINING PROCESS

The Tax Structure Committee

Students of federalism tend to look longingly on the deliberations of the Tax Structure Committee of the mid-1960s. Among other things, they gave Canada the representative-tax-system approach to equalization. To be sure, the 1960s were generally a period of plenty—conflicts in the federal-provincial arena were relatively easy to resolve in a context of overall economic growth. This is in sharp contrast to 1987, when slow growth and restraint may dominate the environment. Nevertheless, it is instructive to review the mandate of the Tax Structure Committee:

The Committee is directed...to study and to report upon the following matters... :

- 1 Trends to be expected during 1967-72 in public expenditures by the federal government, the provinces and the municipalities, taking into account the broad priorities likely to be accorded by governments to expenditures on major programmes that will compete for available funds;
- 2 The problems involved in financing these expenditures and their relationship to the economic circumstances to be expected, the probable levels of costs of public services and facilities, and the prospective levels of government debt;
- 3 The general policy to be followed in respect of shared-cost programmes during the period 1967-72;
- 4 The tax fields that should be used exclusively by the federal government and by the provinces and municipalities, and the fields in which joint occupancy is desirable;
- 5 The arrangements to be made in respect of jointly-occupied tax fields;

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- 6 The relation of equalization grants to the fiscal requirements and fiscal capacities of the provinces, and the best of equalization arrangements for the period 1967-72;
- 7 Future intergovernmental liaison on fiscal and economic matters;
- 8 Other related matters. (Canada 1966, 5-6)

A proposal for an 'Interprovincial Fiscal Secretariat'

For whatever reason, the Tax Structure Committee was short-lived and there appears to have been little effort to resurrect it. It is understandable why the federal government may prefer that such an institution not exist. What puzzles me is why the provinces have not attempted to put something in its place. After all, most if not all of the programs that fall under the umbrella of the fiscal arrangements are under the constitutional responsibility of the provinces. Yet it appears that the provinces, individually and collectively, remain very much passive observers between the five-year reviews and then become aroused, often passionately so, when the federal government unveils its proposals for the next set of arrangements. Typically, this is far too late in the day for them to have much impact.

While I recognize that the Fiscal Arrangements Act is an act of the federal Parliament, it nevertheless seems desirable that the provinces improve their ability to have substantial input into the renegotiation process. To this end, I recommend that the provinces establish an 'Interprovincial Fiscal Secretariat' that would play a fact-finding and research role on a continuing basis with respect to the fiscal arrangements; it might also be called upon to play either a leading or an ancillary role in the deliberations leading up to the next set of fiscal arrangements. There is much that such an institution could do. For example, it could provide information and estimates relating to the manner in which the aging of the population is going to influence the major expenditure and tax responsibilities that fall under the federal and the provincial domains. This information on the prospects for vertical balance for the 1990s is absolutely vital background information for the 1987 renegotiations. Such an organization could also move in the direction of standardizing provincial accounting practices and thereby make it much easier to compare provincial fiscal positions. This data base could also be used to begin the development of a 'representative expenditure system', should the provinces so

wish. Most important of all, the Secretariat would be able to provide the needed overview or perspective with respect to the whole range of programs falling under the purview of the fiscal arrangements. In my view, it is within this general framework that the equalization needs of the provinces can best be assessed.

There is, of course, no guarantee that such a Secretariat would enhance the bargaining power of the provinces. Indeed, this consideration should not even be among the criteria by which one would judge whether it were a success or not. Rather, there is a need for the provinces to take a national point of view on many issues, the fiscal arrangements among them. The current situation in which some of the provinces are in effect abandoning their interest in the equalization program because they are now in the 'have' category is not a healthy one. Equalization is more than a program for 'have-not' provinces. It is part and parcel of our national fabric. It is important that all provinces maintain an interest in it, and an institution such as the Interprovincial Fiscal Secretariat might provide the appropriate means to achieve this result.

CONCLUSION

Canada's equalization program has come a long way since its beginnings in 1957. It has become an integral part of the financial interface between the two levels of government. However, it is probably the case that Canadians tend to look upon equalization as a program only for the 'have-not' provinces. But this is far too narrow a conception of the role of equalization in the federation. The 'federal' and 'nationhood' rationales for equalization (highlighted in Chapter 3) embody conceptions of equalization that are national in scope. Moreover, the system of equalization payments is what has allowed the federation to decentralize via the transfer of direct taxation to the provinces. To the extent that this greater fiscal autonomy via the tax system is in the interests of the 'have' provinces, they too are beneficiaries of equalization.

There is also a role for an equalization program to enhance overall efficiency—to ensure that geographical mobility of factors is motivated by market rather than fiscal criteria. In this sense, too, equalization can take on national overtones. However, while the *potential* exists for equalization to enhance efficiency, it seems highly

unlikely that any of Canada's recent equalization programs could be defended on efficiency grounds. Indeed, it would appear that the RFPS, like the RNAS before it, inhibits the optimal outmigration from the eastern provinces to Ontario and encourages excess migration from Ontario to the energy-producing provinces. While this situation represents, in my view, a significant shortcoming of the existing equalization program, it is important to recognize that economic efficiency is only one of many rationales for an equalization program.

In general, then, it is probably not an overstatement to assert that equalization has become an essential part of the glue that binds us together as a nation. The enshrining of equalization in the Constitution Act of 1982 reflects the place that equalization has come to occupy in the political and economic life of the federation. However, there are storm clouds on the horizon. The 1987 revision of the fiscal arrangements will certainly be tension-ridden. Established program transfers will again be a source of contention, given the implications of the Canada Health Act and of the politics and economics of fiscal restraint. The RFPS is probably headed for considerable reform, given its obvious deficiencies. But overshadowing any specific concerns relating to the RFPS formula is the Ottawa-Nova Scotia offshore-energy deal, which will override whatever equalization program happens to be in force when these revenues come on stream. The possibility of a movement of Canada's equalization program away from a formula-based system to a province-specific system cannot be discounted if the offshore arrangement is generalized. There is no doubt in my mind that this possibility presents the most severe challenge in the history of Canada's equalization program and that because of it the 1987 arrangements will represent a watershed in the evolution of the program.

NOTES

- 1 The obvious exception to this would be a deal that overrode the equalization program. As noted in the postscript to Chapter 2, the Ottawa-Nova Scotia 'deal' does just this, as does the recent pact between Newfoundland's premier, Brian Peckford, and the Progressive Conservative leader, Brian Mulroney. The implications of these deals will be addressed later in this chapter.
- 2 This information is derived from panel 3 of Tables 4.6 and 4.7. Essentially, one divides the indices for 1981-82 in Table 4.6 by the corresponding tax effort indices in Table 4.7.

TECHNICAL APPENDIX

A note on the analytics of the RFPS equalization formula

Thomas J. Courchene and David E. Wildasin*

For fifteen years, from 1967 to 1982, Canada's equalization program was geared, in principle at least, to ensuring that provinces had access to the all-province average of per capita revenues for a wide but not encompassing set of provincial revenues. This approach to equalization has come to be known as the representative tax system (RTS) approach. However, since the standard of equalization was the all-province or national average, we shall refer to this system as the representative national-average standard (RNAS). Since April 1982, a new system has prevailed, namely the representative five-province standard (RFPS). As the name suggests, the poorer provinces' revenues are now to be brought up to the level of the five provinces that make up the standard. These are Ontario, Quebec, Manitoba, Saskatchewan, and British Columbia. Excluded from the RFPS are the richest province (Alberta) and the four poorest (the Atlantic Provinces). This switch from the RNAS to the RFPS has already generated a substantial policy literature. The purpose of this paper is more analytical in nature—to focus on the properties of the new RFPS formula both in isolation and in comparison with the RNAS approach.¹

The first section of the paper presents the basic formulae for the RNAS and RFPS approaches. Following sections deal in turn with the impact on equalization of tax rate changes, tax base changes, and population movements. As one might expect, the results for the RFPS formula depend upon whether a province is part of the group of provinces making up the representative average standard.

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THE RNAS AND RFPS FORMULAE

The base per capita formulation

In per capita terms, the RNAS formula can be expressed as follows:

$$\frac{E_{ij}}{P_i} = t_{cj} \left(\frac{B_{cj}}{P_c} - \frac{B_{ij}}{P_i} \right), \quad (\text{A.1})$$

where

E_{ij} = equalization to province i from revenue source j ,

t_{cj} = the national average (i.e., all-province) tax rate, defined as total revenues for revenue source j (TR_j), divided by the total base for source j (B_{cj}), where subscript c refers to Canada or the all-province total,

$\frac{B_{cj}}{P_c}$ = national average per capita base for revenue category j , and

$\frac{B_{ij}}{P_i}$ = province i 's per capita base for source j .

For each province the entitlements are summed over the revenue sources and the total, if positive, is the province's per capita equalization payment. If the total is negative, the equalization payment is set equal to zero (i.e., the program is not an interprovincial revenue-sharing pool).

If one assumes that province i 's tax rate is identical to the national average tax rate (i.e., $t_{ij} = t_{cj}$), the intuitive rationale underlying equation A.1 is straightforward—a province will receive in total per capita revenue (i.e., own revenues, $t_{ij} \cdot B_{ij}/P_i$, plus equalization) an amount equal to the product of the national average base and the national average tax rate. In effect, it levies its tax rate against the national average base.

The RFPS formula is similar except that the provinces' overall revenues are brought up to the per capita yield at national average rates in the five provinces constituting the RFPS:

$$\frac{E_{ij}}{P_i} = t_{cj} \left(\frac{B_{Rj}}{P_R} - \frac{B_{ij}}{P_i} \right), \quad (\text{A.1'})$$

where

$$\frac{B_{Rj}}{P_R} = \text{the per capita base for source } j \text{ in the RFPS provinces.}$$

The population-share formulation

For certain of the experiments that follow it is more convenient to work with the population-share versions of these formulae. For the RNAS

$$E_{ij} = TR_j \left(\frac{P_i}{P_c} - \frac{B_{ij}}{B_{cj}} \right), \quad (\text{A.2})$$

which follows from rearranging the terms of equation A.1. The intuition here is that, for $t_{ij} = t_{cj}$, a poor province's overall revenues for any revenue source will equal its population share of total revenues (TR_j) for this source.

The corresponding population-share formulation under the RFPS approach is not quite as straightforward:

$$E_{ij} = \frac{B_{Rj}}{B_{cj}} TR_j \left(\frac{P_i}{P_R} - \frac{B_{ij}}{B_{Rj}} \right), \quad (\text{A.2'})$$

where B_{Rj}/B_{cj} , henceforth denoted as β_j , is the share of the total base located in the RFPS provinces.

From equations A.1 and A.1' it is clear that, for any given revenue source, equalization will be higher under the RFPS formulation if the

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RFPS per capita base exceeds the RNAS per capita base. Equivalently, and intuitively, the RFPS equalization for poor provinces will be larger if $B_R/B_c > P_R/P_c$; that is, if the five RFPS provinces have a larger share of the tax base than they have of the population.

We now proceed to focus on some of the properties of the formulas.

CHANGING TAX RATES

From equations A.1 and A.1', the impact on per capita equalization of an increase in a province's own tax rate is straightforward: $(B_{ij}/B_{cj})D_{ij}$ for the RNAS and $(B_{ij}/B_{cj})D'_{ij}$ for the RFPS, where D_{ij} and D'_{ij} are, respectively, the fiscal deficiencies (bracketed terms) in equations A.2 and A.2'. In other words, if a province is poor in terms of a particular base (i.e., if D is positive), per capita equalization will increase by an amount equal to this deficiency times the increase in own (and, hence, overall) revenues, B_{ij} , divided by the national base. Equalization per capita for a poor province will also increase if the tax rate increases in *another* province, by $(B_{i^*j}/B_{cj})D_{ij}$ for the RNAS and by $(B_{i^*j}/B_{cj})D'_{ij}$ for the RFPS (where the asterisk denotes a province other than province i). Obviously, under both the RNAS and the RFPS, a small province such as Nova Scotia will benefit more from equalization if a large province such as Ontario (with a larger B_{ij}) increases its tax rate than if Nova Scotia increases its own tax rate.

For this experiment the fact that some provinces are included in the RFPS and some are not is of no consequence. However, this is not the case for the remaining experiments.

CHANGING OWN TAX BASES

The RNAS

Assume that a province's own tax base increases, *ceteris paribus*. Intuitively, this will have two contrary effects on equalization. The province will now be richer, so that equalization will fall on this count. On the other hand, overall revenue will increase, which will increase equalization. As will be seen, the former effect will dominate. Let G_{ij} and G'_{ij} represent the 'gaps' in equations (A.2) and (A.2'); that is,

$$G_{ij} = \frac{P_i}{P_c} - \frac{B_{ij}}{B_{cj}}$$

and

$$G'_{ij} = \frac{P_i}{P_R} - \frac{B_{ij}}{B_{Rj}}.$$

Assuming once again that $t_{ij} = t_{cj}$, the effect of a base increase in province i under the RNAS is:

$$\frac{\partial E_{ij}}{\partial B_{ij}} = t_{cj} \left(\frac{P_i}{P_c} - 1 \right) < 0. \quad (\text{A.3})$$

Per capita equalization will fall, as one would expect, and this fall will be larger for more sparsely populated provinces. Of more interest is what happens to the change in the province's overall revenues, including own revenues. Noting that the province's total revenue from tax source j is $R_{ij} = t_{ij} B_{ij} + E_{ij}$, one can easily show that

$$\frac{\partial R_{ij}}{\partial B_{ij}} = t_{cj} \left(\frac{P_i}{P_c} \right). \quad (\text{A.4})$$

In other words, overall, the province's revenues will *increase* by an amount equal to the product of its population share and the tax rate.² This is, of course, a desirable property in the sense that one would not want *total* revenues to decrease as a province became richer. However, if the province's tax rate is less than the national average tax rate, it is possible for the province's overall revenues to fall as it becomes richer.³

The RFPS

If the province is one of the five provinces making up the RFPS, the result, not surprisingly, is virtually identical to that for the RNAS:

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$$\frac{\partial R_{ij}}{\partial B_{ij}} = (t_{ij} - t_{cj}) (1 + \beta_j G'_{ij}) + t_{cj} \left(\frac{P_i}{P_R} \right). \quad (\text{A.6})$$

(To derive this see equation S.3 in the annex.) With $t_{ij} = t_{cj}$, a province's overall revenues will increase, and this increase will be larger than the RNAS increase since it depends on the province's population share not of P_c but of P_R .

Matters are very different if the province is not part of the five-province standard because an increase in a province's base will not increase the RFPS base; that is, the term B_{ij}/B_{Rj} will be larger. Under these circumstances, overall revenue changes arising from an increase in B_{ij} are

$$\frac{\partial R_{ij}}{\partial B_{ij}} = (t_{ij} - t_{cj}) (1 + \beta_j G'_{ij}). \quad (\text{A.7})$$

If $t_{ij} = t_{cj}$, the loss offset will be 100 per cent; that is, a province will not gain from an increase in its own base. Indeed, it will lose unless its own tax rate is greater than the national average rate. This is a rather perverse feature of the RFPS formula, to say the least.⁴

CROSS-BASE CHANGES

Under the RNAS, province i 's equalization will rise if some other province's base increases. This is clear from equation A.1. The effect on i 's equalization from an increase in i^* 's base is:

$$\frac{\partial E_{ij}}{\partial B_{i^*j}} = (t_{i^*j} - t_{cj}) G_{ij} + t_{cj} \left(\frac{P_i}{P_c} \right). \quad (\text{A.8})$$

A similar expression occurs under the RFPS approach when province i^* is part of the standard:

$$\frac{\partial E_{ij}}{\partial B_{i^*j}} = (t_{i^*j} - t_{cj}) \beta_j G'_{ij} + t_{cj} \left(\frac{P_i}{P_R} \right), \text{ for } i^* \text{ in } R, \quad (\text{A.9})$$

where R is the set of representative provinces.

Once again, the situation is different if the province that increases its tax base is not part of the standard:

$$\frac{\partial E_{ij}}{\partial B_{i^*j}} = (t_{i^*j} - t_{cj}) \beta_j G'_{ij}, \text{ for } i^* \text{ not in } R, \quad (\text{A.10})$$

With $t_{i^*j} = t_{cj}$, a base increase in a non-RFPS province will have no effect on province i 's equalization. This is evident from equation A.1'—a base increase in a non-RFPS province does not affect the bracketed term and will not affect t_{cj} if the base increase is proportional to the increase in provincial revenues. However, if the province has a tax rate less than the national average rate, province i 's equalization will *fall*—again, an intuitively perverse result.⁵

INTERPROVINCIAL BASE SHIFTS

What happens when the tax base shifts from one province to another? In order to make this experiment more realistic, it is convenient to visualize it in terms of a shift in a corporation's headquarters from one province to another, which will shift the allocation of profits across provinces.⁶ In what follows, we are assuming that the only change is in the base—that is, we are neglecting any accompanying population movements, etc. If the base moves from another province i^* into province i under RNAS, the effect on total revenues is:

$$\frac{\partial R_i}{\partial B_{ij}} - \frac{\partial R_i}{\partial B_{i^*j}} = (t_{ij} - t_{cj}) + (t_{ij} - t_{i^*j}) G_{ij}. \quad (\text{A.11})$$

Thus, if tax rates across provinces are identical, this will not result in an increase in province i 's total revenues: there is a 100 per cent offset. In other words, the province is fully compensated for a loss in

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its base to another province and vice versa (recalling that we are neglecting any accompanying population shifts, etc.).

The same basic result holds for province i under the RFPS provided that (a) province i and the other province i^* are both *out* of the standard or (b) province i and the other province i^* are both *in* the standard. However, if the receiving province is in the RFPS (e.g., Manitoba) and the sending province is not (e.g., Nova Scotia), then Manitoba will benefit in terms of overall revenues (assuming all tax rates are identical):

$$\frac{\partial R_i}{\partial B_{ij}} - \frac{\partial R_i}{\partial B_{i^*j}} = (t_{ij} - t_{cj}) + (t_{ij} - t_{i^*j}) \beta_j G'_{ij} + t_{cj} \left(\frac{P_i}{P_R} \right). \quad (\text{A.12})$$

But if the receiving province is Nova Scotia (not in the RFPS) and the sending province is Manitoba (in the RFPS), Nova Scotia's overall revenues will fall:

$$\frac{\partial R_i}{\partial B_{ij}} - \frac{\partial R_i}{\partial B_{i^*j}} = (t_{ij} - t_{cj}) + (t_{ij} - t_{i^*j}) \beta_j G'_{ij} - t_{cj} \left(\frac{P_i}{P_R} \right). \quad (\text{A.13})$$

The intuition underlying these last two results can be drawn from equation A.1'. The increase in B_{ij} will be the same in both cases. But in the first case B_{Rj} (the total base in the RFPS) will increase, whereas in the shift from Manitoba to Nova Scotia B_{Rj} will fall.

This is another rather questionable feature of the RFPS. In effect, it means that the equalization compensation that Quebec, for example, will receive from losing a corporate headquarters will be larger if the corporation moves to Ontario than it will be if the corporation moves to Alberta.

POPULATION SHIFTS

Population shifts; no shift in base

There are several experiments one could conduct with respect to population shifts. We shall restrict ourselves only to shifts in population among the provinces (i.e., keeping P_c fixed). Even here, two sorts of experiments are possible: (a) population shifts that do not

affect the base and (b) population shifts that do affect the base. The former relate to the resource revenue categories while the latter relate to categories such as personal income taxes and sales taxes, where it is obvious that a shift in population will also affect a province's base.

To deal first with those revenue categories where population movements do not affect the base, it is clear from equation A.2 that an increase in the population of province i , *ceteris paribus*, will increase its RNAS equalization. Of more interest is what happens to its per capita equalization. Will it increase as well? The answer is yes: a one-unit shift in population from province i^* to province i will change E_{ij}/P_i according to

$$\frac{\partial (E_{ij}/P_i)}{\partial P_i} - \frac{\partial (E_{ij}/P_i)}{\partial P_{i^*}} = \frac{1}{P_i} \left(t_{cj} \frac{B_{ij}}{P_i} \right). \quad (\text{A.14})$$

In effect, per capita equalization increases because the population inflow will generate a proportional increase in equalization *plus* a further amount, as the province is now poorer in terms of per capita base. The term in A.14 represents this second impact; the first is subsumed in the experiment itself, since we are focusing on per capita equalization. Note, however, that if the province in question has a zero base (i.e., $B_{ij} = 0$), per capita equalization will be unchanged; that is, it cannot get 'poorer' in terms of its endowment of this base. For some revenue categories, such as energy revenues, many provinces do indeed have a zero base.

Under the RFPS, equation A.14 also obtains if both the sending and receiving provinces are included in the RFPS or if both are excluded. However, if the population-receiving province is excluded and the sending province is included in the RFPS, the per capita equalization increase will be greater than that in equation A.14 (see equation S.7 in the annex). This occurs because, from equation A.1', not only does B_{ij}/P_i fall, but B_{Rj}/P_R rises, since P_R is now lower.

The opposite occurs if the receiving province is in the RFPS and the sending province is not; that is, one subtracts the above term from the expression in equation A.14. If the province in question has a zero base (e.g., the Atlantic Provinces for the energy revenue sources) then per capita equalization falls, since the term in equation A.14 becomes zero.

Equalization payments

Population and base shifts

A population shift will also have an impact on the tax base for revenue sources other than the resource categories, since the migrant will carry with him a bundle of income and spending characteristics. Let this tax base accompanying the migrant be B_{mj} for source j (B_{mj} has the dimensions of dollars of base per person). Under the RNAS scheme we can, from equation A.1, obtain the total derivative relating to a move from province i^* to province i :

$$\frac{d(E_{ij}/P_i)}{dP_i} = \frac{1}{P_i} \left[(t_{ij} - t_{i^*j}) \frac{P_i B_{mj} D_{ij}}{B_{cj}} - t_{cj} \left(B_{mj} - \frac{B_{ij}}{P_i} \right) \right]. \quad (\text{A.15})$$

The first term relates to total revenues that enter the formula. If province i has a higher tax rate than province i^* , then total revenues from this source will be higher (or t_{cj} will increase), which will increase per capita equalization. The second term relates to the impact that the migrant will have on a province's relative base. Assuming that all provinces' tax rates are equal (so that the first term is zero), immigration to province i will increase per capita equalization if $B_{mj} < B_{ij}/P_i$; that is, if the migrant has a lower base for this source than the existing residents.⁷ It should be pointed out that equation A.14 is really a special case of equation A.15, corresponding to $B_{mj} = 0$.

As usual, equation A.15 also obtains for the RFPS if sending and receiving provinces are either both in or both out of the standard (except that D_{ij} becomes D'_{ij}). When the sending province is outside the RFPS and the receiving province inside, then the change in per capita equalization becomes:

$$\frac{d(E_{ij}/P_i)}{dP_i} = \text{equation A.15} + \frac{t_{cj}}{P_R} \left(B_{mj} - \frac{B_{Rj}}{P_R} \right). \quad (\text{A.16})$$

The intuitive reason for this additional increase in equalization (for $B_{mj} > B_{Rj}/P_R$) is that it enriches the RFPS standard; that is, it increases B_{Rj}/P_R . The result is symmetric in the sense that if the assumptions are reversed (i.e., if the sending province is in and the

receiving province out), then the rightmost term in equation A.16 is prefixed by a negative sign. For $B_{mj} > B_{Rj}/P_R$, the migrant's departure from the RFPS lowers the standard and lowers everyone's equalization payment.

Interestingly enough, these results can be generalized to a case in which province i is the third party—that is, in which migration occurs between two other provinces. If all three provinces have identical tax rates, there will be no effect on province i under the RNAS or under the RFPS if both of the other provinces are either in or out of the standard. However, a move of population from Ontario (in the RFPS) to Nova Scotia (outside the representative provinces) would, for $B_{mj} > B_{Rj}/P_R$, lower equalization for Newfoundland. This is clear from equation A.1', since the only variable that would change is B_{Rj}/P_R , which would fall. The amount of this decrease is $t_{cj}/P_R (B_{mj} - B_{Rj}/P_R)$, the rightmost term in equation A.16. Similarly, Newfoundland's equalization would increase by this amount if the migration flow went from Nova Scotia to Ontario, again assuming that $B_{mj} > B_{Rj}/P_R$.

CONCLUSION

Canada's new equalization formula incorporates some rather perverse effects in comparison with the old RNAS formula. As detailed above, these are likely to include marginal rates of implicit taxation of over 100 per cent on resource development. In addition, some effects depend sensitively on whether changes in population or economic activity involve representative provinces, nonrepresentative provinces, or both. In our view, the latter aspect of the new formula is particularly troublesome, since it leads to incentives where equalization-receiving provinces are not neutral with respect to development prospects elsewhere in the federation. These differential locational impacts can be significant, a point that has been dealt with elsewhere by Courchene (1983b).

NOTES

- 1 We do not attempt to take the *financing* of the equalization program into account in our discussion. Rather, we are concerned solely with the implications of the RNAS and RFPS formulas for the interprovincial allocation of equalization flows. The annex to this appendix focuses on the derivations of the main equations that follow.
- 2 Since the RNAS formula allowed only one-half of energy revenues to enter the formula, it provided an even greater incentive for a poor province to engage in

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resource development. Correcting for this requires that one add a term, $\frac{1}{2}t_{cj}$, to equation A.4.

3 The relevant expression is:

$$\frac{\partial R_{ij}}{\partial B_{ij}} = (t_{ij} - t_{cj}) (1 + G_{ij}) + t_{cj} \left(\frac{P_i}{P_c} \right), \quad (\text{A.5})$$

where the first term is negative if $t_{ij} < t_{cj}$.

- 4 As noted above, this perversity can arise under the RNAS as well. It is obviously more pronounced, however, for a nonrepresentative province under the RFPS. The fact that under the RFPS resource bases no longer receive special treatment (see note 2 above) accentuates this possibility.
- 5 As before, this perverse result can occur under the RNAS as well. But because province i does not receive its per capita share of the (representative-rate) revenue flowing from i^* 's extra base, it is more likely to occur under the RFPS. Incidentally, the statement in the text assumes $G'_{ij} > 0$, i.e., that i is a 'have-not' province for base j . The results are reversed if $G'_{ij} < 0$.
- 6 By agreement among the provinces, the allocation of profits of a multiprovince corporation is determined by the following formula

$$\frac{1}{2} \left(\frac{S_i}{S_c} + \frac{W_i}{W_c} \right) = \text{province's share of profits},$$

where

$$\frac{S_i}{S_c} = \text{the proportion of the corporation's sales in province } i$$

and

$$\frac{W_i}{W_c} = \text{the proportion of the corporation's wage bill in province } i.$$

- 7 The expression for total revenues (own revenues plus equalization) is:

$$\frac{d(R_{ij}/P_i)}{dP_i} = \frac{1}{P_i} \left[(t_{ij} - t_{i^*j}) \frac{P_i B_{mj} D_{ij}}{B_{cj}} + (t_{ij} - t_{cj}) \left(B_{mj} - \frac{B_{ij}}{P_i} \right) \right].$$

Thus, if province i has a *lower* tax rate than do other provinces, its *total* per capita revenues will fall if the characteristics of the in-migration are such that

$$B_{mj} > \frac{B_{ij}}{P_i}.$$

Annex

A number of the results in the technical appendix are stated without detailed derivations and/or are presented for special cases (e.g., when a provincial tax rate is assumed to equal the national average). Here we present necessary derivations and more general results. The sections of this supplement are keyed to the sections of the appendix. Equation numbers in the supplement are prefixed by the letter S.

CHANGING TAX RATES

The results cited in the text follow directly from equations A.1 and A.1', noting the definition $t_{cj} = (\sum_i t_{ij} B_{ij}) / (\sum_i B_{ij})$.

CHANGING OWN TAX BASES

The RNAS

From equation A.2 we have

$$\frac{\partial E_{ij}}{\partial B_{ij}} = t_{ij} G_{ij} - \frac{TR_j}{B_{cj}} + \frac{TR_j B_{ij}}{B_{cj}^2} = t_{ij} G_{ij} - t_{cj} + t_{cj} \left(\frac{B_{ij}}{B_{cj}} \right), \quad (\text{S.1})$$

from which equation A.3 follows if $t_{ij} = t_{cj}$. The change in revenue from all sources is thus

$$\frac{\partial R_{ij}}{\partial B_{ij}} = \frac{\partial E_{ij}}{\partial B_{ij}} + t_{ij}, \quad (\text{S.2})$$

which, from equation S.1 and the definition of G_{ij} , is just equation A.5 of footnote 3. This, of course, reduces to equation A.4 if $t_{ij} = t_{cj}$.

The RFPS

The change in equalization associated with a change in base is computed from equation A.2' and yields, for i belonging to R ,

$$\begin{aligned}
 \frac{\partial E_{ij}}{\partial B_{ij}} &= t_{ij} \beta_j G'_{ij} + \left(\frac{TR_j}{B_{cj}} \right) G'_{ij} - \left(\frac{TR_j B_{Rj}}{B_{cj}^2} \right) G'_{ij} - \frac{TR_j \beta_{Rj}}{B_{Rj}} + TR_j \beta_j \left(\frac{B_{ij}}{B_{Rj}^2} \right) \\
 &= (t_{ij} - t_{cj}) \beta_j G'_{ij} + t_{cj} \left(G'_{ij} + \frac{B_{ij}}{B_{Rj}} - 1 \right) \\
 &= (t_{ij} - t_{cj}) \beta_j G'_{ij} + t_{cj} \left(\frac{P_i}{P_R} - 1 \right).
 \end{aligned} \tag{S.3}$$

Adding t_{ij} to this expression yields equation A.6.

If province i is not in R , the second and last terms after the first equation in S.3 do not appear, and we find instead that

$$\frac{\partial E_{ij}}{\partial B_{ij}} = (t_{ij} - t_{cj}) (\beta_j G'_{ij}) - t_{cj}. \tag{S.4}$$

Again, adding t_{ij} to account for the change in own-revenue, we get equation A.7.

CROSS-BASE CHANGES

From A.2 under RNAS we have

$$\frac{\partial E_{ij}}{\partial B_{i*j}} = t_{i*j} G_{ij} + \left(\frac{TR_j}{B_{cj}^2} \right) B_{ij}$$

Equalization payments

$$= (t_{i^*j} - t_{cj}) G_{ij} + t_{cj} \left(\frac{P_i}{P_c} \right),$$

which is equation A.8. For the RFPS case where i^* belongs to R , we have

$$\begin{aligned} \frac{\partial E_{ij}}{\partial B_{i^*j}} &= t_{i^*j} \beta_j G'_{ij} + \left(\frac{TR_j}{B_{cj}} \right) G'_{ij} - TR_j \left(\frac{B_{Rj}}{B_{cj}^2} \right) G'_{ij} + TR_j \beta_j \left(\frac{B_{ij}}{B_{Rj}^2} \right) \\ &= (t_{i^*j} - t_{cj}) \beta_j G'_{ij} + t_{cj} \left(G'_{ij} + \frac{B_{ij}}{B_{Rj}} \right), \end{aligned} \quad (S.5)$$

which reduces to equation A.9. When i^* is not in R , the second and last terms following the first equality in S.5 do not appear, and we get equation A.10.

INTERPROVINCIAL BASE SHIFTS

To get equation A.11, simply subtract equation A.8 from equation A.5 in note 3.

Under the RFPS, if both i and i^* are among the representative five provinces, we can subtract equation A.9 from equation A.6 to obtain

$$\frac{\partial R_{ij}}{\partial B_{ij}} - \frac{\partial R_{ij}}{\partial B_{i^*j}} = \left(t_{ij} - t_{cj} \right) + (t_{ij} - t_{i^*j}) \beta_j G'_{ij}, \quad (S.6)$$

which is quite analogous to equation A.11. The same result holds if neither i nor i^* are in the representative group; in that case, subtracting equation A.10 from equation A.7 yields equation S.6.

To derive equation A.12, subtract A.10 from A.6. To derive equation A.13, subtract A.9 from A.7.

POPULATION SHIFTS

Population shifts; no shift in base

Equation A.14 follows directly from differentiation of equation A.1 with respect to P_i , holding P_c constant. The same result holds under the RFPS if P_R is constant; that is, if either both i and i^* belong to R or neither do. We then have from equation A.1':

$$\frac{\partial (E_{ij}/P_i)}{\partial P_i} - \frac{\partial (E_{ij}/P_{i^*})}{\partial P_{i^*}} = \frac{1}{P_i} \left(t_{cj} \frac{B_{ij}}{P_i} \right) + t_{cj} \left(\frac{B_{Rj}}{P_R^2} \right). \quad (\text{S.7})$$

When i belongs to R and i^* does not, it is obvious that the sign on the second term is reversed.

Population and base shifts

To obtain equation A.15, simply note that $dB_{ij}/dP_i = B_{mj}$ and that $dB_{i^*j}/dP_i = -B_{mj}$. Then, from equation A.1,

$$\begin{aligned} \frac{d(E_{ij}/P_i)}{dP_i} &= \left(\frac{dt_{cj}}{dP_i} \right) D_{ij} - t_{cj} \frac{d(B_{ij}/P_i)}{dP_i} \\ &= (t_{ij} - t_{i^*j}) D_{ij} \frac{B_{mj}}{B_{cj}} - \frac{t_{cj}}{P_i} \left(B_{mj} - \frac{B_{ij}}{P_i} \right), \end{aligned} \quad (\text{S.8})$$

which yields equation A.15. Since

$$\frac{d(t_{ij} B_{ij}/P_i)}{dP_i} = \frac{t_{ij}}{P_i} \left(B_{mj} - \frac{B_{ij}}{P_i} \right), \quad (\text{S.9})$$

we obtain the expression in note 7.

Equalization payments

From equation A.1', we see that the result is identical under the RFPS if both i and i^* belong to R , since the migration leaves B_{Rj}/P_R unaffected. This is also true if neither i nor i^* are in R . If, however, i is and i^* is not in R , we must add the term

$${}^t_{cj} \frac{d(B_{Rj}/P_R)}{dP_i} = \frac{{}^t_{cj}}{P_R} \left(B_{mj} - \frac{B_{Rj}}{P_R} \right), \quad (\text{S.10})$$

as indicated in equation A.16, while the sign is reversed if i is not in R and i^* is.

References

- Auld, D.A.L., and L.B. Eden (1983) 'Federal-provincial financial equalization and the Canadian constitution.' In *Environment and Planning C: Government and Policy*, vol. 1, no. 4, 475-87
- Bastien, Richard (1981) *Federalism and Decentralization: Where Do We Stand?* (Ottawa: Government of Canada)
- Bernard, Jean-Thomas (1982) 'Le financement de la Confédération: la rente des ressources naturelles.' *Canadian Public Policy/Analyse de Politiques* 8, no. 3, 297-9
- Bird, Richard (forthcoming) 'Review of the report of the Commonwealth Grants Commission.' *Finanzarchiv*
- Boadway, Robin, and Frank Flatters (1982) *Equalization in a Federal State: an Economic Analysis* (Ottawa: Economic Council of Canada)
- (1983) 'Efficiency, equity and the allocation of resource rents.' In Charles E. McLure, Jr. and Peter Mieszkowski, eds. *Fiscal Federalism and the Taxation of Natural Resources* (Toronto: D.C. Heath and Company)
- Boadway, R., F. Flatters, and A. LeBlanc (1983) 'Revenue sharing and the equalization of natural resources.' *Canadian Public Policy/Analyse de Politiques* 9, 174-80
- Canada (1939) *Report of the Royal Commission on Dominion-Provincial Relations* (Ottawa: King's Printer)
- (1966) *Proceedings of the Federal-Provincial Tax Structure Committee, Ottawa, September 14 and 15, 1966* (Ottawa: Queen's Printer)
- (1980) *The Canadian Constitution 1980: Proposed Resolution* (Ottawa: Publications Canada)
- Carter, George (1971) *Conditional Grants Since World War II*

Equalization payments

- (Toronto: Canadian Tax Foundation)
- Clark, Douglas H. (1969) *Fiscal Need and Revenue Equalization Grants* (Toronto: Canadian Tax Foundation)
- (1976) 'Note on equalization and resource rents.' In A.D. Scott, ed. *Natural Resource Revenues: a Test of Federalism* (Vancouver: University of British Columbia Press)
- (1983) 'Canadian experience with the representative tax system as a means of measuring the relative fiscal capacities of provincial and local governments.' Testimony before the United States Senate Committee on Governmental Affairs, Subcommittee on Intergovernmental Relations, 6 April
- Commonwealth Grants Commission (1981) *Report on State Tax Sharing Entitlements, 1981: Main Report* (Canberra: Australian Government Publishing Services)
- (1983) *Equality in Diversity: Fifty Years of the Commonwealth Grants Commission* (Canberra: Australian Government Publishing Services)
- Courchene, Thomas J. (1970) 'Interprovincial migration and economics adjustment.' *Canadian Journal of Economics* 3, 550-76
- (1974) *Migration, Income and Employment: Canada, 1965-68* (Montreal: C.D. Howe Research Institute)
- (1976) 'Equalization payments and energy royalties'. In Anthony Scott, ed. *Natural Resource Revenues: A Test of Federalism* (Vancouver: University of British Columbia Press) 73-107
- (1978) 'The transfer system and regional disparities: a critique of the status quo.' In Michael Walker, ed. *Canadian Confederation at the Crossroads: the Search for Federal-Provincial Balance* (Vancouver: Fraser Institute)
- (1979) *Refinancing the Canadian Federation: a Survey of the 1977 Fiscal Arrangements Act* (Montreal: C.D. Howe Research Institute)
- (1980) 'Energy and equalization.' In Ontario Economic Council, *Energy Policy for the 1980s: an Economic Analysis*, v.1 (Toronto: Ontario Economic Council)
- (1981) 'The National Energy Program and fiscal federalism: some observations.' In G.C. Watkins and M.A. Walker, eds. *Reaction: the National Energy Program* (Vancouver: Fraser Institute)
- (1983a) 'Analytical perspectives relating to the Canadian economic

- union.' In Michael Trebilcock, Robert Prichard, Thomas J. Courchene, and John Whalley, eds. *Federalism and the Canadian Economic Union* (Toronto: University of Toronto Press)
- (1983b) 'Canada's new equalization program: description and evaluation.' *Canadian Public Policy/Analyse de Politiques* 9, 458-75
- (forthcoming) 'The fiscal arrangements: focus on 1987.' In Thomas J. Courchene, Gail Cook, and David Conklin, eds. *Ottawa and the Provinces—the Distribution of Money and Power* (Toronto: Ontario Economic Council)
- Courchene, Thomas J., and David A. Beavis (1973) 'Federal-provincial tax equalization: an evaluation.' *Canadian Journal of Economics* 6, 483-502
- Courchene, Thomas J., and Glen H. Copplestone (1980) 'Alternative equalization programs: two-tier systems.' In Richard Bird, ed. *Fiscal Dimensions of Canadian Federalism* (Toronto: Canadian Tax Foundation)
- Courchene, Thomas J., and James R. Melvin (1980) 'Energy revenues: consequences for the rest of Canada.' *Canadian Public Policy/Analyse de Politiques*, special supplement on the Heritage Savings and Trust Fund, 6, 192-204
- Courchene, Thomas J., and David E. Wildasin (1983) 'A note on the analytics of the new equalization formula.' (Kingston: Queen's University, Department of Economics) Discussion Paper 531
- Dales, John (1975) 'Beyond the marketplace.' *Canadian Journal of Economics* 8, 483-503
- (1983) 'Distortions and dissipations.' *Canadian Public Policy/Analyse de Politiques* 9, 257-64
- Davenport, Paul (1979) 'Equalization payments and regional disparities.' Paper presented to the 13th Annual Meeting of the Canadian Economics Association, 30 May 1979, Saskatchewan
- Davis, William (1979) *Oil Pricing and Security: a Policy Framework for Canada* (Toronto: Premier of Ontario) August
- Department of Finance (1981a) *Provincial Fiscal Equalization: First Estimate, 1981-82*. Ottawa, Federal-Provincial Relations Division, Department of Finance
- (1981b) 'Macro economic equalization formulas.' Discussion Paper prepared for the 26-27 March 1981 meeting of the Federal-Provincial Subcommittee on Fiscal Arrangements (Ottawa: Department of Finance)

Equalization payments

- (1982a) 'Bill C-97: amendments to the Fiscal Arrangements and Established Programs Financing Act, 1977; background data on the fiscal equalization program, 1981-82 and 1982-83 to 1986-87.' (Ottawa: Department of Finance)
- (1982b) 'Alternative approach to fiscal equalization for the 1982-83 to 1986-87 period based upon a representative average standard with expanded coverage.' (Ottawa: Department of Finance)
- (1982c) *Provincial Fiscal Equalization, Second Estimate*. Ottawa, Federal-Provincial Relations Division, Department of Finance, July
- (1983) 'Review of the fiscal arrangements regulations by the Technical Subcommittee on equalization.' In *Provincial Fiscal Equalization, Fifth Estimate, 1982-3*. Ottawa, Federal-Provincial Relations Division, Department of Finance, October
- (1984) *Release/Communiqué 84-40*, Ottawa (March 30)
Economic Council of Canada (1980) *Newfoundland: from Dependency to Self-Reliance* (Ottawa: Ministry of Supply and Services)
- (1982) *Financing Confederation: Today and Tomorrow* (Ottawa: Ministry of Supply and Services)
- Eden, L. (1981) 'Fiscal equity and equalization payments.' Paper presented to the Canadian Economics Association, Halifax
- Energy, Mines and Resources Canada (1984) *Communiqué 84/49* (May 31)
- Federal-Provincial Relations Office (1983) *Federal-Provincial Programs and Activities, 1982-83* (Ottawa: Ministry of Supply and Services)
- Flatters, Frank, V. Henderson, and P. Mieszkowski (1974) 'Public goods, efficiency and regional fiscal equalization.' *Journal of Public Economics* 3, 99-112
- Gainer, W.D., and T.L. Powrie (1975) 'Public revenue from Canadian crude petroleum production.' *Canadian Public Policy/Analyse de Politiques* 1, 1-12
- Graham, John F. (1960) 'The special Atlantic Adjustment Grants: a critique.' *Canadian Tax Journal* 8, 39-43
- (1964) 'Fiscal adjustment in a federal country.' In *Inter-governmental Fiscal Relations*, Canadian Tax Papers no. 40 (Toronto: Canadian Tax Foundation)
- (1980) 'Comment.' In R.M. Bird, ed. *Fiscal Dimensions of Canadian*

- Federalism* (Toronto: Canadian Tax Foundation)
- (1982) 'Equalization and Canadian federalism.' *Public Finance*, vol. 37, no. 2, 246-62
- Grubel, H.G. (1971) 'Risk, uncertainty and moral hazard.' *Journal of Risk and Insurance*, vol. 38, no. 1, 99-106
- Helliwell, John, and Anthony Scott (1981) *Canada in Fiscal Conflict: Resources and the West* (Vancouver: Pemberton Securities)
- House of Commons (1981) *Minutes of Proceedings and Evidence of the Special Committee on Federal-Provincial Fiscal Arrangements* (Ottawa: Queen's Printer)
- Hum, Derek (1983) *Federalism and the Poor* (Toronto: Ontario Economic Council)
- Hunter, J.S.H. (1973) 'Revenue sharing in the Federal Republic of Germany.' Research Monograph no. 2, Centre for Research on Federal Financial Relations (Canberra: Australian National University)
- Kwavnick, David (1973) *The Tremblay Report* (Toronto: McClelland and Stewart)
- MacEachen, Allan J. (1981) *Federal-Provincial Fiscal Arrangements in the Eighties: a Submission to the Parliamentary Task Force on Federal-Provincial Fiscal Relations* (Ottawa: Department of Finance)
- (1982) *Release/Communiqué* Ottawa, March 19
- Moore, Milton (1981) 'Some proposals for adapting federal-provincial financial agreements to current conditions.' *Canadian Public Administration/ Administration Publique du Canada* 24, 232-56
- Moore, Milton, J. Harvey Perry, and Donald I. Beach (1966) *The Financing of Canadian Federation: The First Hundred Years* (Toronto: Canadian Tax Foundation)
- Musgrave, R.A. (1961) 'Approaches to a fiscal theory of political federalism.' In *Public Finances: Needs, Sources, Utilization*. N.B.E.R. (Princeton: Princeton University Press)
- Norrie, K.H., and M.B. Percy (1984) 'Province-building and industrial structure in a small, open economy.' In D.D. Purvis, ed. *Economic Adjustment and Public Policy in Canada* (Kingston: John Deutsch Memorial for the Study of Economic Policy)
- Norrie, K.H., M.B. Percy, and L.S. Wilson (1982) 'Financing confederation: principle of practices of equalization.' *Canadian Public Policy/Analyse de Politiques* 8, 290-3

Equalization payments

- Oates, Wallace E. (1984) 'Tax effectiveness and tax equity in federal countries: commentary.' Forthcoming in Charles McLure, ed., conference volume of the International Seminar in Public Economics
- Ontario (1980) 'Equalization and fiscal disparities in Canada.' Budget Paper A, *Ontario Budget, 1980* (Toronto: Queen's Printer)
- (1981) 'Renegotiation of federal-provincial fiscal arrangements: an Ontario perspective.' Budget Paper B, *Ontario Budget, 1981* (Toronto: Queen's Printer)
- (1982) 'Fiscal federalism in Canada: the record to date, the challenge ahead.' Budget Paper B, *Ontario Budget, 1982* (Toronto: Queen's Printer)
- Ontario Economic Council (1983) *A Separate Personal Income Tax for Ontario: an Ontario Economic Council Position Paper* (Toronto)
- Parliamentary Task Force on Federal-Provincial Fiscal Arrangements (1981) *Fiscal Federalism in Canada* (Ottawa: Ministry of Supply and Services)
- Pawley, Howard (1982) Notes for an opening statement to the Federal-Provincial Conference of First Ministers on the economy, Ottawa, February
- Provincial Finance Ministers and Treasurers (1981) 'Provincial report on the revised equalization program proposed in the November 12, 1981 federal budget.' Communique of the Federal-Provincial Meeting of Finance Ministers and Provincial Treasurers, Toronto, 14-15 December
- Purvis, Douglas D. (1984), ed. *Economic Adjustment and Public Policy in Canada* (Kingston: John Deutsch Memorial for the Study of Economic Policy)
- Purvis, Douglas D., and Frank F. Flatters (1980) 'Ontario: policies and problems of adjustment in the eighties.' In Ontario Economic Council, *Developments Abroad and the Domestic Economy* (Toronto: Ontario Economic Council)
- Quebec (1982) 'Fiscal equalization: an important supplement to the provincial tax system.' Working Paper, Ministère des Finances, Directeur générale de la politique fiscale
- Saskatchewan (1981) 'An alternative equalization formula: proposal of the Province of Saskatchewan.' Tabled at the 14 December 1981 Federal-Provincial Meeting of Finance Ministers and Provincial Treasurers

- Scott, A.D. (1964) 'The economic goals of federal finance.' *Public Finance* 19, 241-88
- Scott, Anthony, ed. (1982) 'Financing Confederation.' *Canadian Public Policy/ Analyse de Politiques* 8, 283-310
- Sharp, Mitchell (1966) 'Statement by the Honourable Mitchell Sharp, Minister of Finance, to the Federal-Provincial Tax Structure Committee.' In *Proceedings of the Federal-Provincial Conference, Ottawa, October 24-28, 1966* (Ottawa: Privy Council Office)
- Smiley, Donald V. (1980) *Canada in Question: Federalism in the Eighties* (Toronto: McGraw-Hill Ryerson)
- Strick, J.C. (1973) *Canadian Public Finance* (Toronto: Holt, Rinehart and Winston)
- Watson, William G. (1983) 'Equalization is about equity, not efficiency.' Mimeo, McGill University, Montreal
- Wheare, Kenneth C. (1964) *Federal Government*, 4th ed. (London: Oxford University Press)
- Wilson, L.S., M.B. Percy, and K.H. Norrie (1981) 'The economics of equalization payments.' Mimeo, Department of Economics, University of Alberta
- Winer, Stanley, and Denis Gauthier (1982) *Internal Migration and Fiscal Structure: an Econometric Study of the Determinants of Interprovincial Migration in Canada* (Ottawa: Economic Council of Canada)

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Special Research Report

Equalization Payments: Past, Present, and Future

THOMAS J. COURCHENE

This study presents a comprehensive analysis and evaluation of Canada's system of equalization payments.

Following a brief introduction and overview, Part II focuses on the evolution of Canada's equalization formula from its inception in 1957 through to the enshrining of the principle of equalization in the *Constitution Act, 1982*. Also featured are the forerunners of the program such as Rowell-Sirois and the statutory subsidies of the *BNA Act*.

Part III provides the analytical foundations for equalization. Attention is directed to political, constitutional, and economic rationales for equalization.

Part IV evaluates the Representative National Average Standard (RNAS) approach to equalization which held sway from 1967 until its replacement by the Representative Five-Province Standard (RFPS) in 1982.

Part V focuses on 'options forgone', namely those approaches to equalization that for one reason or another were passed over by our legislators. Included for analysis are macro approaches, revenue-sharing pools, and representative expenditure approaches.

Part VI focuses on Canada's new equalization program – the RFPS. The analysis traces the transition from the RNAS to the RFPS, focuses on the characteristics of the RFPS, and then evaluates the new program.

The concluding section highlights those aspects of the RFPS program that are problematic and likely to figure prominently in the 1987 round of equalization negotiations.

THOMAS J. COURCHENE is a professor of economics at the University of Western Ontario, a Fellow of the Royal Society of Canada and Chairman of the Ontario Economic Council.

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